CITY OF

Alexandria

VIRGINIA

FY 2007

INFORMATION TECHNOLOGY PLAN

APPROVED ❖ JULY 1, 2006 - JUNE 30, 2007

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CITY OF ALEXANDRIA
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ALEXANDRIA TECHNOLOGY AWARDS

Digital Cities Survey Award

Alexandria's e-government initiatives were ranked fourth in the nation for cities of its size, according to an annual study by the National League of Cities, the Center for Digital Government, and Government Technology magazine. The study focused on how well city governments have deployed information technology resources to deliver services to customers.

The "Digital Cities Survey" recognized Alexandria's cutting-edge web site at alexandriava.gov. The survey noted the availability of City Council webcasts; electronic forms and calendars, online payment of taxes, tickets, and fees; emergency preparedness information, interactive job applications, and free public wireless Internet access. The City was also cited for its extensive use of technology in law enforcement; comprehensive strategic planning and project management; information technology standards and protocols; geographic information systems; and citywide data network.

The City tied with Lincoln, Neb., for fourth place in the 125,000 to 249,000 population range, topping such large cities as Des Moines, Iowa, and Salt Lake City, Utah, for the honor. Alexandria was the only city in the Washington, D.C., metropolitan region recognized in any population category.

Excellence in Public/Private Partnerships Award

The U.S. Conference of Mayors honored the City of Alexandria and Comcast with its 2006 Excellence in Public/Private Partnerships Award. The award recognizes the long-term joint development of the City's Institutional Network, or "I-Net", as well as the innovative interconnection with the Arlington County government I-Net which was accomplished in 2005. Alexandria and Comcast received one of only two such awards given nationally. The I-Net, begun in 1994, is a citywide fiber optic backbone that provides a variety of data, voice, and video communications capabilities to city government facilities, libraries, recreation centers, and public schools. The network – the first its kind in Virginia – now connects nearly 100 municipal and school facilities and has proven to be essential by providing direct high-speed connectivity that does not rely on the Internet.

The I-Net supports the city's enterprise electronic mail, calendaring, and database systems, provides employees with access to internal application servers and the Internet, provides a backup link for the City's E-911 system, and is the primary link between the police and fire communications centers for the Computer Aided Dispatch system. The I-Net also provides in-classroom video services in the public schools, which are used for communication between school sites and for distance learning and videoconferencing.

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Information Technology Plan Preface

The City of Alexandria's Information Technology Plan is the framework within which the City's annual information technology work is conducted. As the City's business needs and the technology environment changes, so too does the focus of the IT Plan. This approved FY 2007 - FY 2012 IT Plan reflects:

- Funding over a six-year period of $18 million in City funds, and $5.8 million in outside funds.

- replacement of the City's E-911 system at a cost of $1.5 million, including both software and hardware, to ensure continued operation of this integral part of the communication and response network for the City's emergency services.

- continued growth of e-government services in helping to make conducting business with the City more convenient for residents and businesses and to improve accountability of government;

- completion of the upgrade of the City's Institutional Network (I-Net) to expand capability, capacity and to protect its reliability for both City government and the City's public school system;

- protecting the City's critical information technology infrastructure through planning for emergency preparedness and disaster recovery;

- strengthening the security of the City's IT systems amidst increasingly sophisticated virus writers and others who seek to do harm to computer systems connected to the Internet;

- determining how telecommunications technologies can be applied to construct a unified communications structure for the City, especially in the area of emergency communications; and

- growing the application of project management processes for information technology projects to help complete projects on time, at or under budget and at a high quality.

The FY 2007 - 2012 IT Plan reflects the second year of the two-year detailed IT Plan that was prepared as part of the City's shift to a biennial CIP planning process.

These elements and projects will be key this year to the improvements to City services that are the foundation of all that the Information Technology Plan supports.

CITY OF ALEXANDRIA
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Information Technology Goals and Principles

The City's goals and principles for the application and management of information technology (IT) provide the framework for managing and delivering key IT services to support the City's business.

City Technology Goals

The City's goals for the use of IT are to:

- Provide residents, businesses and City staff convenient electronic access to information and related services.
- Deliver timely and effective responses to customer requirements.
- Guarantee a reliable computer infrastructure, including data communications.
- Effectively manage the City's information and technology assets.
- Ensure reliable connections between State government data services and systems and City systems to facilitate City and State operations.
- Partner with appropriate government entities, non-profit organizations and private firms in providing the most effective and efficient delivery of City government information services.
- Seek, where practical, to implement joint IT projects with the City government, the Alexandria Library and the Alexandria City Public Schools (ACPS).
- To ensure the reliable delivery of telephone and voice messaging services, and to appropriately take advantage of the convergence of voice and data services through digital technologies.

Goals of the Information Technology Services Department

The goals of the City's Information Technology Services Department (ITS) are:

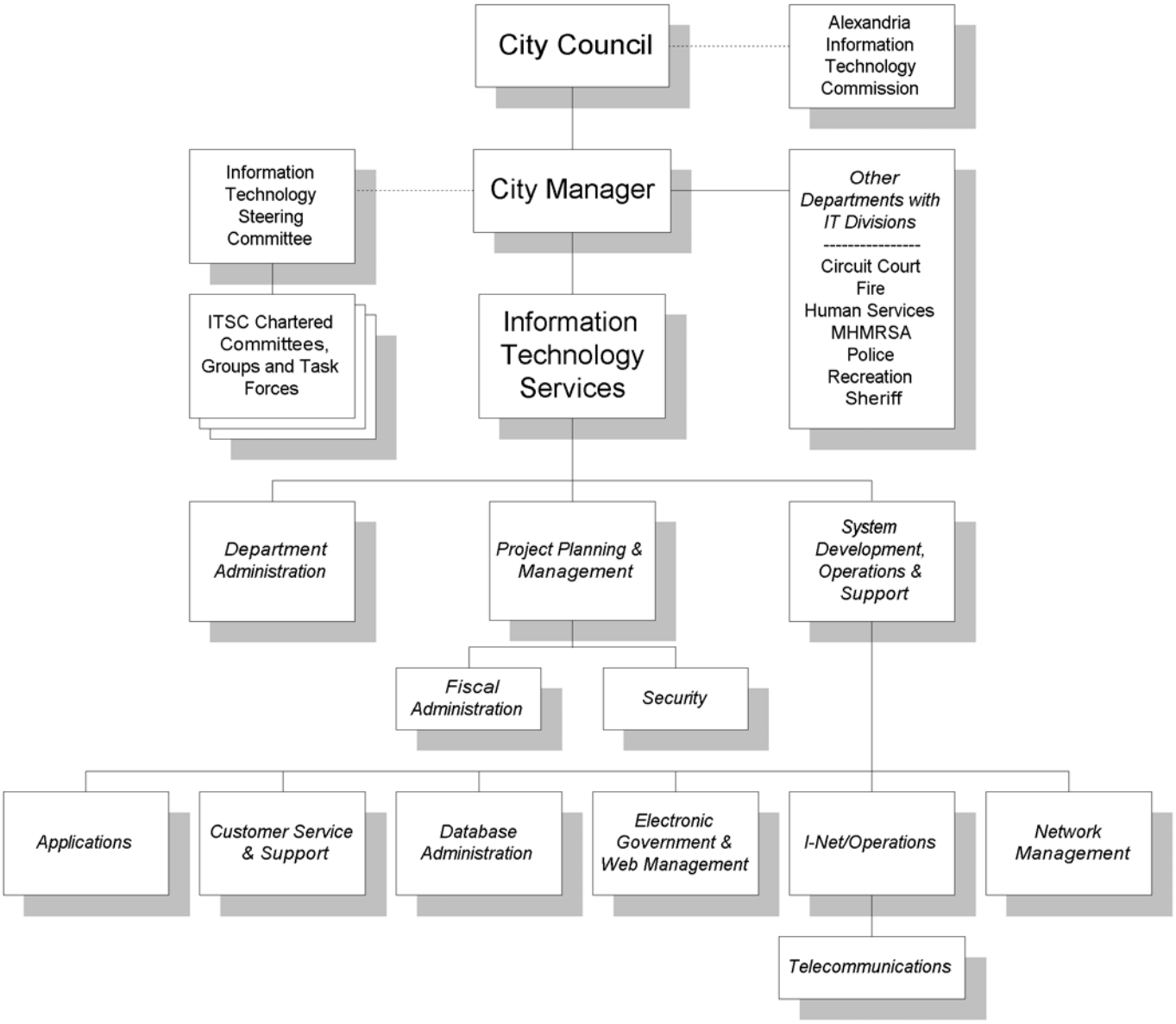
- To provide information service to City departments that is reliable, credible and accessible in a timely manner, and to assess satisfaction with this service on an on-going basis.
- To ensure that the City's IT human resources are appropriately managed and trained.
- To provide timely response to requests for service.

- To improve City management and operational capabilities through the use of information systems by providing City management and legislative leadership with reliable, well-informed information about the cost-effective application of technology to the City's business processes.

- To safeguard the City's physical computer system hardware and to safeguard access to the City's electronically stored data.

- To exercise good stewardship in the development of information technology systems projects through the application of industry standard project management policies and practices.

ORGANIZATION OF CITY INFORMATION TECHNOLOGY RESOURCES



ALEXANDRIA INFORMATION TECHNOLOGY COMMISSION

The Commission, established by City Council in 1997 through Ordinance 3953, is an advisory group to the City government. The Commission's purpose is to make recommendations to and advise the City government in the formulation and implementation of information and telecommunications policy, and promote resident participation in the formulation of such policy. The Commission also annually reviews the City Manager's proposed Information Technology Plan.

Information Technologies Steering Committee and Strategic Principles

The Information Technologies Steering Committee (ITSC), composed of representatives from the City's top-level management and user agencies, was established in 1987 to advise the City Manager on the planning and prioritization of City information technology systems and services, and to coordinate all major computer hardware and software acquisitions. The ITSC's recommendations for the replacement and upgrading of the City's information technology infrastructure have been guided by the following Strategic Principles:

- Give priority to addressing urgent public safety and public health needs; meeting legal requirements; maintaining vital financial processes; exploiting available non-City resources for funding; and attaining quantifiable returns on investment;

- use outside contractors to meet applications and maintenance needs where appropriate;

- continue to exploit new technology to deliver services cost effectively and improve public access to City services and information;

- reduce the need for training and facilitate rapid deployment of new systems by striving to employ integrated user interfaces for computer applications; and

- where possible, encourage the purchase of commercial-off-the-shelf (COTS) software for new business applications, with minimal customization.

Chartered Committees, Groups and Task Forces of the ITSC

To more broadly engage City staff in the planning and implementation of IT initiatives, the ITSC created a number of interdepartmental groups through a chartering process. The charter requires each group to meet regularly, take and distribute notes, in many cases prepare budget submissions for their areas of responsibility and monitor appropriation expenditures that are within their charter. A full list of these groups and further details on each group is included below.

Alexandria Justice Information System (AJIS) Steering Committee
The AJIS Steering Committee advises in regard to policy and direction for the users of the Alexandria Justice Information System (AJIS). In addition, it provides general oversight of AJIS; receives recommendations from the AJIS Coordinator and sets overall goals; periodically evaluates progress; meets biannually or when called by AJIS Steering Committee Chairperson; appoints subcommittees; delegates powers as needed; approves AJIS budget requests, and makes recommendations to the City regarding AJIS budgetary and policy matters.

Document Imaging and Management Group

The purpose of the Document Imaging and Management Group is to provide guidance in implementing the various departmental document imaging projects throughout the City. The group, established in FY 2004, defines project priorities among departments requesting imaging projects, and works to ensure that the best practices regarding data availability and security are followed.

GIS Steering Committee

The Geographic Information Systems Steering Committee (GISSC) is responsible for supporting and fostering successful GIS implementation throughout the City. The GISSC will develop and recommend plans, policies and budget initiatives to the ITSC and will work to ensure that individual department actions with respect to GIS are consistent with the City's overall goals for GIS. The GISSC is chaired by the City's GIS Manager.

Human Resources Steering Committee

The Human Resources Steering Committee (HRSC) manages and supports decision making regarding the City's human resources systems (payroll, personnel and related systems). The committee develops plans, policies and budget initiatives for the City's HR systems, and makes recommendations on these issues to the ITSC. The HRISC also works to foster education and coordination inside and outside the City on human resources systems issues. The HRISC is comprised of representatives of the Personnel Services, Finance, OMB, ITS and several of the City's larger departments and agencies, and is chaired by the representative of the Personnel Services department.

Information Technology Security Subcommittee

The IT Security Subcommittee (ITSS) was formed at the request of the Information Technology Steering Committee (ITSC) and is intended to operate as a subcommittee of the ITSC to support information technology security decision making throughout the City. The ITSS is an advisory group to the ITSC. The goal of the ITSS is to foster IT security throughout the City government. To accomplish this goal, the ITSS will develop plans, policies and budget initiatives. The ITSS will guide City-wide IT security policy development and facilitate education and coordination inside and outside of the City on security issues. It is chaired by the City's IT Security Officer.

Public Safety Systems Committee

The Public Safety Systems Committee (PSSC) is an outgrowth of the CAD/RMS Committee. The goal of the PSSC is to work to coordinate and integrate public safety systems, and to serve as a forum for the sharing of plans, activities and expertise between Alexandria public safety agencies. The Chair of this committee rotates annually between the Police and Fire departments.

Radio Committee

The Radio Committee (RC) supports all City radio and public safety wireless systems operations, enhancements and initiatives. The goal of the RC is to continue the successful operation and upgrade of the City's trunked radio system and to facilitate the smooth implementation of new radio and public safety wireless technologies. Members

include representatives of the Police and Fire departments, the Office of the Sheriff, ITS and T&ES (representing all other non-public safety City users). The committee is chaired by the City's radio manager.

Permitting Committee
The Permitting Committee's (PC) focus is on improving existing business processes through maximizing the functionality provided by the City's permitting application; developing standards for business processes; continuing to document and discuss system problems; and communicating and planning for new releases. The Permitting Committee is presently chaired by the Director of Code Enforcement.

Recreation Systems Committee
This Recreation Systems Committee (RSC) focuses on maximizing the benefits of the recreation services system (RSS) through expanding its usage. The RSC is chaired by the Director, Recreation Parks and Cultural Activities.

Telecommunications Committee
The Telecommunications Committee (TC) works to guide the acquisition of the City's telephone services and equipment. The role of the TC is to provide policy recommendations, promote new technologies and their integration with other City technologies, and to provide advice on appropriate inter-relationships of telephone systems technology with other communications systems and devices. It is chaired by staff from the Information Technology Services Department.

INFORMATION TECHNOLOGY SERVICES DEPARTMENT

The ITS department is responsible for the operation of the City's information technology services, including IT infrastructure in the City. The City's ITS organization must provide ongoing support for client/server and web application processing in a sophisticated and secure network environment, replace legacy systems with new enterprise-wide applications designed to operate in this environment, and provide an effective, flexible, responsive and secure structure to manage change and address the City's enterprise-wide information needs. The ITS department includes the following groups that provide these services:

Administration
This group includes office management, billing, meeting and schedule coordination, simple purchase management, reception, training administration and personnel processing.

Project Planning and Management
Responsible for enterprise-wide planning, management and assessment of internal and external IT projects. This group includes:

- *Finance Administration* - Includes complex purchase management, budgeting, financial management and telecommunications billing.

- *Security* - Responsible for the assessment, formulation and implementation of enterprise-wide security policies.

System Development, Operations and Support
Responsible for design, development, operation, maintenance, and support of the City's infrastructure, applications and communications capabilities. This group includes:

- *Applications Management* - Includes the management, maintenance and development of enterprise applications and dedicated business systems.

- *Customer Service and Support* - Includes Help Desk and equipment deployment services.

- *Electronic Government* - Includes the development of web-based applications, management of the City's web site and intranet and support of their technical architecture, as well as electronic publishing.

- *Enterprise Data* - Includes Database Administration. Responsible for enterprise-wide data standardization, integration and information exchange.

- *Network Management* - Responsible for e-mail system and enterprise server system management and connectivity.

- *I-Net/Operations* - Includes Institutional Network (I-Net) management, network operations center, and construction, moves and relocation coordination. This group includes:

    - *Telecommunications Systems Management* - This function is responsible for telecommunications system planning and day-to-day operations.

Information Technology Services - Policy and Review Committee

While each functional area of ITS has a specific area of responsibility, ITS staff from each division work cooperatively to ensure cross-divisional coordination on important projects. The ITS Policy and Review Committee supports enterprise architecture technology planning and security policy formulation and assessment in its monthly meetings. The committee, composed of ITS management and division chiefs, is responsible for the following:

- Support and planning for initiatives identified in the Information Technology Plan;

- formulation and review of IT policies, including security;

- review and approval of conformance to enterprise-wide standards for integration and information exchange;

- definition and review of standardized project planning and project management procedures; and

- oversight of project performance, schedule conformance, staffing and cost.

Other Departments With Information Technology Divisions or IT Staff Support

In addition to ITS, there are seven City departments and agencies that have a division which also provides information technology services. These services are coordinated with ITS staff.

- **Circuit Court** - The Alexandria Justice Information System (AJIS) Coordinator, with a staff of 5, manages IT services for the Courthouse and for customers of the AJIS system. Services provided includes support for over 250 computer workstations and over 500 users.

- **Fire** - The department's 4 IT staff coordinate with the ITS department staff to support the Fire and EMS Operations, Fire and EMS records management, Code Enforcement building permits system, Emergency Management, Fire/EMS Training, Fire Maintenance and Fire computer aided dispatch system and other Fire-specific computer systems. Fire IT staff support over 150 computer workstations. A supervisory IT coordinator position was added to the Fire Department in FY 2005.

- **Human Services** - The Department of Human Services (DHS) IT Coordinator, with a staff of 4, manages IT services for the DHS Mt. Vernon Avenue facility, the JobLink employment center, the Community Digital Divide Initiative, the Mentor Home, the Adult Day Services Center and for other departments that use DHS systems. The DHS IT Coordinator acts as a liaison with the Virginia Department of Aging, Virginia Naturalization and Immigration Services, The Northern Virginia Regional Commission, and the Virginia Department of Social Services with regard to their information systems operations and installation. DHS staff manage over 350 computer workstations used by staff and residents.

- **Mental Health/Mental Retardation/Substance Abuse** - The MH/MR/SA Department's Research and Evaluation Director and 4 full time staff manage IT services for the department. Two staff manage the IT network and hardware services and 2 staff manage the specialized medical records software and database for the numerous locations including the Mental Health Center on Saint Asaph Street, Substance Abuse on Mill Road, Vocational Services on Colvin Street, the West-end Club House on King Street and over twenty other Group Home locations and the Detention Center. These staff manage approximately 350 computer workstations, a Citrix Farm and several servers.

- **Police Department** - The Technology Services Division manages the Department's IT services, Emergency Communications (911), Citywide Radio Communications, and Crime Analysis. Major systems include the City's computer aided dispatching (CAD) system, the Police records management system (CRIMES), and the 800MHZ radio infrastructure. The Police LAN, over 200 desktop computers, over 300 mobile computers, the City's Radio System, Crime Analysis, and primary public safety communications services are supported by 10 professional IT staff, 4 sworn officers, and 32 Emergency Communications Technicians.

- **Recreation** - The Information Technology Division of the Department of Recreation Parks and Cultural Activities supports its internal IT work through 2 full-time positions and a portion of a third full-time position. These positions provide first line support for all of the City's recreation facilities and for recreation administration. The Recreation IT staff manage over 140 computer workstations at 15 different sites. They also provide network support, server administration, management for recreation systems, troubleshooting e-mail, web site development and maintenance, e-commerce support, IT system training and technical support for the department.

- **Office of the Sheriff** - The Technology and Information Management Division (TIM) within the Office of the Sheriff has a staff of 4. The team leads IT initiatives related to the Office of the Sheriff, coordinates activities with the City's ITS department, and works with other City agencies, local government, and state agencies on such initiatives. Major systems supported by TIM include: the Public Safety Center Security System, which manages all access to, from and within the Public Safety Center and its perimeter; the Alexandria Justice Information System (AJIS) for booking, jail management, criminal and traffic case information; the Livescan System, which captures and downloads scanned finger and palm prints directly to the State and Regional database; the Local Inmate Data System (LIDS) which captures and reports real time inmate status to state and federal governments; and the Video Arraignment System, that allows prisoners to appear via video before a judge for arraignment. TIM administers first level help desk support and training for standard City applications for 205 users utilizing 113 workstations, various printers (networked and local), and other computer peripherals.

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INFORMATION TECHNOLOGY INITIATIVES

ELECTRONIC GOVERNMENT

As electronic media have become popular and useful as a means of providing services, the City of Alexandria's Electronic Government (E-Government) project is providing better customer service in the delivery of government services and information. As electronic technology continues to evolve, so do the methods to develop e-government services to take advantage of these technologies to produce efficiencies in traditional business practices.

E-Government services (also known as e-services) within the City of Alexandria are provided through a variety of electronic methods to City constituent groups (residents, employees, visitors, businesses and other governmental entities) to improve traditional interactions with the City. "On-line, not in-line" has been used to explain the essence of what is meant by e-government.

Most people tend to think of e-government as strictly web-based services, but other technologies are being used to provide e-government services. As the City's web presence grew, so did the recognition of the 'digital divide,' i.e., that these conveniences were only available to those who had computer skills and access to the Internet. A conscious decision was made to begin offering e-government services through a variety of electronic methods to help ensure that few individuals remain on the other side of the digital divide. These methods include the Internet, interactive voice response (telephone) systems, computer kiosks, wireless services and electronic mail.

E-Government Guiding Principles

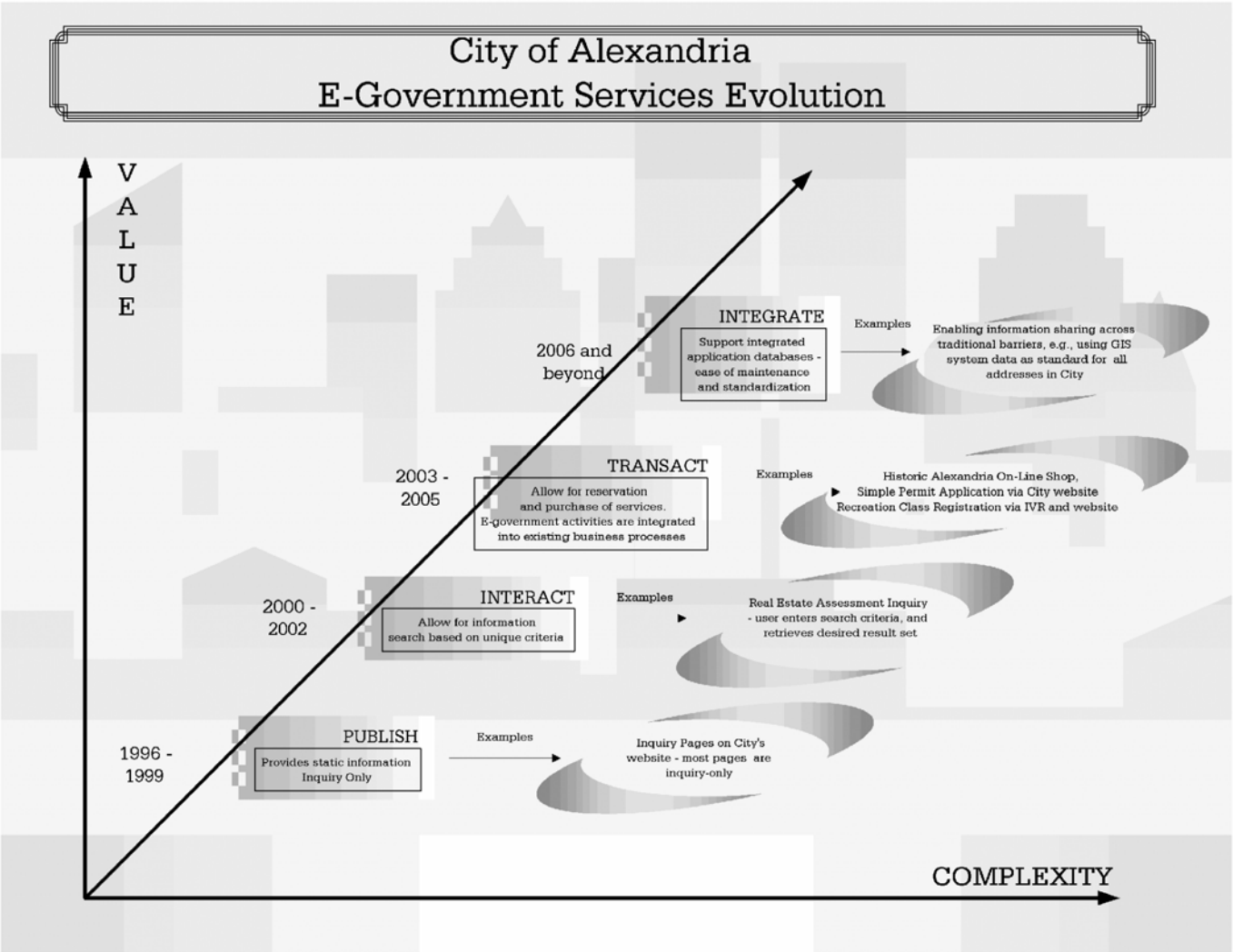
The City of Alexandria's e-government services guiding principles are used to develop new services. Prospective e-government initiatives are reviewed for conformance to the principles to ensure that services are developed that are consistent with the needs of our customers, are economical to deploy and maintain, are secure and have value. The guiding principles state that new e-government services:

- Must ensure privacy and security.
- Should be simple to manage.
- Should avoid stand-alone solutions that do not integrate with the City's e-government structure.
- Should be customer-focused (resident, business, visitor, employee, other government).
- Should be functionally organized.

- Should focus on value.
- Should use available methods to bridge the digital divide.
- Should be accessible to users with a variety of physical, technical, and language needs.

Most e-government services are offered through the City's web site. As the figure below shows, the web site will continue to evolve to incorporate and accommodate a greater level of constituent interaction.

Please see the Web Site Enhancements project on page for additional information regarding the City's web site and the Electronic Government project on page 41 for information regarding the City's planned e-government initiatives.



DIGITAL DIVIDE/DIGITAL OPPORTUNITIES

Not every resident has access to the Internet or other electronic data services from their home, nor is equally skilled in using these technologies. The City continues to develop opportunities for those residents to participate in the digital economy and digital community, thus bridging the 'digital divide.' These include:

Wireless, High-Speed and Dial Up Internet Access

- The Department of Human Services *Job*Link Community Digital Divide Initiative was developed to bridge the digital divide, specifically to help under-served communities gain low or no cost access to computers, the Internet, and on-line training. JobLink serves as the hub of an on-line learning program, and is increasing its ability to broadcast interactive learning and real-time training activities on a wide range of subjects. Visit *www.cddi.us* for more information.

Public and Private Sector Sponsored Facilities

- The Alexandria libraries have become a primary local resource in helping to bridge the gap in the so called "digital divide." The libraries now have 57 Internet public access terminals, including one in Spanish in each branch, which are in use all day every day on a first-come, first-served basis. Due to high demand, Internet-only terminals are limited to one hour per day per patron use. In addition, wireless Internet access has been recently implemented at all Alexandria libraries.

- The Alexandria libraries provide access to more than 30 electronic reference works, databases of searchable articles from thousands of periodicals, and holdings of the Alexandria libraries and 30,000 other libraries in more than 100 countries. Printouts are available for a nominal fee per page. Library card holders are able check therir own records and to access, search, and download information from on-line databases 24 hours a day through the Library's web site.

Education and Training

- The Alexandria libraries also provide computer terminals at all branch libraries with word processing software available for public use, and instruction on using the Internet.

- The Burke Branch library has a computer lab with 14 public access computers. Instruction on accessing and using the Internet is offered as well as other computer training courses.

- *Job*Link has developed partnerships with twenty-five (25) local, public and private agencies to form the Community Digital Divide Consortium (CDDC). These partnerships allow JobLink to increase its ability to: (1) assist in closing the technology gap by developing computer and information literacy, (2) expand its

outreach and service delivery, and (3) fulfill and exceed its short-term and long-term workforce development requirements. The long-range plan is to build additional training courses into this network as well as to expand service and support to other regional, national and international workforce programs.

Enterprise Architecture

The ITS Department would like to establish an enterprise architecture plan. An enterprise architecture will enable the City to establish a standard computing environment to provide seamless integration of City data, applications data and information and allow secure, but open, access to City information by our internal and external customers. This would enable us to attain the following specific objectives:

- Provide information services to City departments that are reliable, accurate, accessible in a timely manner, and assess satisfaction with IT services on an ongoing basis;
- ensure that the City's IT resources are managed properly;
- provide timely responses to requests for services;
- improve City management and operational capabilities through the use of information systems by providing reliable, accurate information on cost-effective applications of technology to City business processes;
- safeguard access to the City's electronically stored data;
- enable the use of effective project management policies and practices in the development and implementation of IT systems; and
- ensure that all hardware and software acquired by the City supports the current and future business needs of the City and that these acquisitions can be supported properly and economically.

Security Initiatives

The City, like all organizations connected to the Internet, faces an evolving array of information security threats, which include viruses and various methods of hacking. Hackers now use "blended" attacks that are very effective at circumventing traditional perimeter security devices such as firewalls. In response, the City has created a full-time Information Technology Security Manager within the ITS department who is responsible for formulation, implementation, and assessment of enterprise-wide security policy. The IT Security Manager works with the Information Technology Security Subcommittee (ITSS) to monitor and direct the activities of the information security program.

The widespread use of firewalls on Internet connections as protection against unauthorized intrusion has encouraged hackers to seek methods to circumvent them, with many successes. It is now widely accepted by information security professionals that a firewall alone is insufficient protection for a computer network. The City's information security program function is evaluating new methodologies and examining their place in the City's information technology infrastructure. In addition, the IT Security Manager is responsible for developing and updating policies and procedures that will assist City employees with their efforts to make Alexandria's information more secure. Implementing new security technologies, policies, and methodologies is a continual process. Examples of improvements that staff are currently evaluating include:

- Centralized Logging - Using a single, highly secure server to hold the system logs of file servers, firewalls, routers, switches and other security devices. Hackers modify logs to cover their tracks. Centralized logging makes it hard for the activities of a hacker to be deleted.

- Enterprise Patch management system - Keeping systems update with security patches a crucial to minimizing the vulnerabilities hackers can use to break into systems. This software will allow us to analyze and maintain secure operating systems.

- Networked Based Intrusion Detection and/or Prevention Systems - These systems detect, prevent and report activities that are associated with system attacks. It will allow the City to quickly identify, respond and mitigate these activities.

- Disaster Recovery Project - The ITS department recently updated its Disaster Recovery Plan. The plan, which is maintained by the ITS Security Officer, will assist the department in recovering from an incident that damages, or restricts access to computer systems.

- Security Awareness Training - educating users throughout the organization about the City's Information security policies is critical in protecting the City's computer systems and data. In the near future, City employees will receive required training on the policies and the fundamentals of safe and secure computer use that is simple to understand and follow.

ITS Department Performance

ITS has continued to seek more effective methods of determining how well City IT service is being delivered. For the past five fiscal years ITS has asked George Mason University's [GMU] Institute of Public Policy to assist with measuring the performance of ITS as that service is viewed by departmental and agency customers. ITS was the first City department to incorporate a customer evaluation into its continuous improvement goal. GMU has conducted four electronic surveys, asking all City government staff members that have City e-mail accounts to rate ITS performance. The surveys included two kinds of questions: (a) those which sought a response on a five point scale - with one being

unsatisfactory and five being very satisfied, and (b) open ended questions in which the respondent had an opportunity to make statements. All materials were treated confidentially by GMU staff so that ITS staff did not know individual responses, helping to encourage respondents to be candid in their answers. After each survey, GMU staff individually contacted those departmental staff who indicated specific problems or concerns so that GMU staff could better understand the nature of the problem and the respondents had an opportunity to make statements in confidence that they may have been reluctant to commit to writing.

In the first year the survey covered the Help Desk, Computer Training functions and general ITS issues. In the second year of the survey, questions regarding the performance of Network Services, E-mail and Lotus Notes services, CityNet and Applications services and Electronic Publishing Office services were covered. In the third year the survey was conducted, questions on Web Team services and the Telecommunications function were added (the Telecommunications function was transferred from the General Services Department to ITS in FY 2003). No new categories were added for the FY 2004 survey. This past year, questions on the Database Administration and the Information Technology Project Office were added.

Where categories of questions were asked in all years, every attempt was made to keep the text of the question substantially unchanged so that a more accurate measure of year-to-year change could be evaluated. It is the City's intention to continue to conduct these surveys, building on the accumulation of data to develop a much clearer picture of the performance of ITS in delivering services in the context of each fiscal year's opportunities and constraints. In each year approximately 450 usable responses were received, representing approximately a 30 percent response rate, which is considered to be very high.

On a five-point scale, the mid-point, three, is considered by the survey profession, to be a "natural indifference" point; i.e. if the respondent does NOT have a strong opinion, then they will tend to choose the mid-point. This means that if, on average, a service is rated below three, there is a problem with its delivery, while if the average is above three, then customers are generally satisfied. This is, however, not to say that when customers are generally satisfied that improvements aren't warranted or changes should not be considered, only that the service, from the customer's point of view across the organization, is meeting expectations.

- In FY 2004 the overall average response to 74 questions in 11 categories was 3.82.
- In FY 2005 the overall average response to 83 questions in 13 categories was 4.0.
- No category was rated below the natural indifference point.

The following table describes these findings in additional detail:

	Category	Average Response FY 2004	FY 2005
1	Help Desk	4.05	4.19
2	Computer Training	3.97	4.06
3	General Issues with ITS	3.70	3.88
4	Network Services	3.5	3.98
5	E-mail Services	3.89	3.95
6	Lotus Notes Services	3.98	4.08
7	CityNet (Intranet Services)	3.71	3.76
8	Applications	3.57	3.83
9	Electronic Publishing Office	4.37	4.55
10	Telecommunications Services	3.90	3.92
11	Web Team Services	3.95	3.87
12	Database Administration Services	N/A	4.01
13	IT Project Office	N/A	4.02

These differences are within the 5 percent margin of error for the study.

Telecommunications Management

In FY 2004, ITS engaged a telecommunications consulting firm to assess the City's telecommunications program to recommend best practices to be implemented. The firm completed its report, and recommended improvements to support processes and procedures, management tools and metrics, accounting and billing procedures and strategic planning, are being or have been implemented.

Beginning in 2003, the City embarked on a 10-year telephone handset and switch replacement initiative. Six years of the cost of the replacements are budgeted in the FY 2007 - FY 2012 IT Plan. The additional years will be added in future years' IT planning documents.

Voice Over IP (VoIP)

Voice Over IP, or VoIP for short, allows telephone users to make telephone calls using a computer network over a data network like the City I-Net or Internet. VoIP converts the voice signal from a telephone into a digital signal that travels over the Data Network then converts it back at the other end so users can speak to anyone with a regular phone number. Some services using VoIP may only allow the caller to call other people using the same service, but others may allow the caller to call anyone who has a telephone number - including local, long distance, mobile, and international numbers. Also, while some services only work over the user's computer or a special VoIP phone, other services allow for the use of a traditional phone through an adaptor.

There are some compelling technical and business reasons for the City to give this new technology serious consideration in the future. However, Voice Over IP is an evolving yet relatively new technology. As such, it is believed that VOIP will continue to evolve and become better and cheaper to implement in time. ITS will continue to evaluate cost-effectiveness and feasibility of using VoIP in the City.

WIRELESS ALEXANDRIA

The City's "Wireless Alexandria" service, which went live in April 2005, allows any user with a wireless device to access the Internet at no charge in a pilot area of Alexandria. The service was the Washington, DC, region's first free, outdoor, wireless Internet zone, and still one of very few of its kind in the United States. The current outdoor coverage area is centered along the main downtown corridor (waterfront along King St. up to Washington St.) and includes outdoor dining, Market Square, and the City Marina and Potomac River waterfront. Depending on building locations and other conditions, coverage is available for some distance around that corridor in each direction. If the pilot project continues to be successful, coverage may be expanded to other pedestrian corridors in the City. Alexandria public libraries also offer wireless access within their buildings.

The goals of Wireless Alexandria are to provide a convenient public service to users, stimulate economic development and tourism by drawing people to Alexandria, promote the image of Alexandria as a high-tech community, and test the feasibility of using wireless devices for municipal operations. This "win-win" situation gives the government the rare opportunity to let the public use the same equipment City staff is testing for municipal use.

The service is optimized for outdoor use and uses 802.11b/g mesh routers. Although some indoor users may be able to connect to the system, the service is not intended to compete with commercially available Internet service and should not replace existing home or business Internet access. The project is narrowly tailored to serve a unique outdoor area of the City, and has virtually no impact on commercial Internet service providers.

At the conclusion of the pilot project in mid-2006, staff will consider the feasibility of expanding the wireless network which could aid municipal operations and regional collaboration by making the City's Institutional Network available to workstations and devices in the field. This could benefit public safety personnel, public transit providers, field inspectors, and public works crews, by providing real-time access to existing City data, voice, and video services. Expansion to other pedestrian corridors in the City will also be considered.

Wireless Connectivity

Wireless transmission technologies provide many opportunities for work process innovation and improvements. Providing access to City information services in a way that does not require a City staff member be at their desk, can change the way in which a variety of City jobs are performed, improving service delivery to residents and businesses.

- Initiatives in the City that use wireless technologies include the Police Department's mobile computing system. This wireless system provides a variety of information to police officers in the field, via mobile computer units located in their patrol vehicles. Information such as photographs of missing children, up-to-the-minute data on stolen vehicles, crimes in progress and other vital information has positively impacted the effectiveness of the police force. In addition, police officers are now able to use their mobile computer units to write and submit their police reports. This capability has reduced the report writing backlog from 4 months to less than 24 hours. Officers query the data in the Records Management System through a web-based interface. The Police Department has also issued a wireless-ready computer to all operational officers and all sworn staff. This ensures all staff have access to the same information and conveniences.

- The Alexandria Fire Department has deployed 40 mobile computers in all of the fire engines, medic, hazardous material, technical rescue and command vehicles to send dispatch information in a textual format. Once enabled, the mobile computers will also provide critical information such as building pre-plans, chemical data sheets for hazardous materials, street maps and other data.

- The City's parking enforcement officers (PEO's) use handheld ticket writing devices that, through wireless connectivity, allows them to check vehicle license tags to see if the vehicle has been cited multiple times.

- On a limited basis, the City currently provides wireless connectivity to the City's e-mail services through personal data assistants (PDA's), small handheld computing devices. Accessing e-mail remotely enables faster response to issues that would not normally be addressed until the employee returned to his or her office.

Planned Wireless-Based E-Government Services

- Wireless access to the City's Permitting application. Allowing the City's Code Enforcement Inspectors to access the Permitting application in the field will produce time savings, and the system will reflect up-to-the-minute data.

- Support for telecommuting initiatives. Teleworking will allow selected City employees to access City network applications and documents from their home or a telework center.

- Plans are being formulated and implemented to install automatic vehicle locator (AVL) devices in City public safety vehicles using global positioning satellite (GPS) technology. AVL will improve incident response time by enabling dispatch operators to dispatch the appropriate vehicles located closest to the incident.

- The IT project, Wireless Initiatives, provides seed money for these and other wireless initiatives. Additional monies for this project have been requested through FY 2012, in anticipation of the growth of this technology. See page 96 for additional information.

INFRASTRUCTURE PROFILE

The following table presents basic information about the City's information infrastructure.

Indicator	FY 2004	FY 2005	FY 2006	FY 2007
Number of Computer Workstations	2,000	2,200	2,350	2,500
Number of Nodes Connected to the Institutional Network (I-Net)				
Government	45	50[1]	50	50
Libraries	4	4	4	4
Schools	22	22	22	22
Number of E-mail Accounts[2]	1,800	2,300	2,450	2,600

[1] The count includes the addition of the Police Department/Eisenhower Avenue facility and the Durant Recreation Center added to the I-Net in FY 2005.

[2] The count includes both accounts assigned directly to staff members and accounts that are assigned to a computer workstation. The latter are typically used in locations where several employees share a computer workstation or are for special network devices such as network servers.

CITY OF ALEXANDRIA
VIRGINIA

CHANGES TO THE IT PLAN FROM THE PRIOR YEAR

The FY 2007 to FY 2012 Information Technology Capital Improvement Plan (IT/CIP) total of $18 million continues the City's Information Technology agenda. The IT/CIP total of $18 million in City funding compares with $21 million in City funding in the FY 2006 to FY 2011 Information Technology Capital Improvement Plan. This represents a decrease of $3 million, primarily attributable to the re-prioritization of projects to reflect more refined assessment of project timing and funding priorities.

The City approved funding for the FY 2007 to FY 2012 IT Plan is as follows:

	City Share	Outside Revenues	Total
FY 2007	$4,609,500	$2,321,490	$6,930,990
FY 2008	$4,996,655	$665,000	$5,661,655
FY 2009	$2,962,999	$665,000	$3,627,999
FY 2010	$2,242,856	$665,000	$2,907,856
FY 2011	$1,841,640	$665,000	$2,506,640
FY 2012	$1,406,045	$665,000	$2,071,045
Total	$18,059,695	$5,646,490	$23,706,185

The approved FY 2007 to FY 2012 IT Plan includes projects that will continue to strengthen the City's IT infrastructure. On-going maintenance and improvements to the City's local area networks (LANs) and wide area network (WAN) ensure the continued integrity and availability of these essential components of the City's infrastructure.

Continued funding for system development projects allows the City to take advantage of emerging technologies, capitalize on investments already made, ensure compliance with federal and state mandates, and provide for improvements to existing processes and systems to increase efficiencies.

NEW PROJECTS FOR FY 2007 - FY 2012

- DHS Payment System Replacement - Funds in the amount of $40,000 are included in FY 2007 and $280,000 in FY 2008 for the maintenance and eventual replacement of the Department of Human Services's payment system.

EXISTING PROJECTS HIGHLIGHTS

- E-911 Planning and System Replacement - Based upon a consultant study which calculated expected costs, an additional $500,000 was added to this project in FY 2007 to provide sufficient funds for the replacement of this critical system in FY 2007.

- MS Office Conversion - $250,000 is included in FY 2007 for the City to upgrade its word processing and spreadsheet applications (i.e., switch from WordPerfect to MS Word) to a standard platform using Microsoft Office.

FY 2007 funding requests for a number of projects were deferred to FY 2008 to reflect a more realistic schedule of when the funds will actually be needed for the project. These include:

- Payroll/Personnel System Replacement - Funding in the amount of $500,000 scheduled for FY 2007 has been moved to FY 2008.

- Real Estate Accounts Receivable System Replacement - The original FY 2007 request of $475,000 can be moved to FY 2008.

- OMB Systems - Funding in the amount of $75,000 scheduled for FY 2007 has been moved to FY 2008.

- Revenue Collection System FY 2007 funding in the amount of $150,000 has been moved to FY 2008.

For some projects, only portions of the original funds were deferred to FY 2008. These projects include:

- Personal Property Tax System Replacement - The City's personal property tax system exists on an older development platform which should be updated to reduce staff hours required to support the application. Funds in the amount of $250,000 are included in FY 2007 for the re-write of this application.

- Permit Processing - The original request of $180,000 in FY 2007 has been reduced to $60,000, to reflect a more realistic schedule of when funds will be needed for this project.

- E-mail Services - The original request of $264,000 in FY 2007 has been reduced to $200,000.

- Telephony - The original FY 2007 request of $455,253 has been reduced to $246,000.

Lastly, some projects were able to forgo their original FY 2007 request, due to the availability of prior year funds. These projects include:

- GIS Development - The FY 2007 request of $90,000 has been eliminated.

- Financial Accounting System - The original request of $120,000 in FY 2007 has been eliminated.

- Web Site Enhancements - Funding in the amount of $125,000 in FY 2007 has been eliminated.

- Electronic Government - Funding in the amount of $200,000 in FY 2007 has been eliminated.

- LAN Backbone Capacity - Funding in the amount of $50,000 in FY 2007 has been eliminated.

Other project changes:

- Police/Fire Computer Aided Dispatch (CAD/RMS) Project - The amount requested in FY 2008 has been increased by $245,000 to provide City share funds for a regional CAD-to-CAD initiative.

- AJIS Enhancements - An additional $61,000 has been added to the AJIS project in FY 2008 to provide funds to develop mobile access to AJIS for the City's magistrate staff.

Projects Which Have Been Closed

System Development Projects:

- Fingerprint Scanners - This project has been completed and can now be closed.

- Virginia Commonwealth Attorney Information System - This project has been closed, as many of the functions of this system are now performed by the Alexandria Justice Information System.

- Work Order Mobile Application - The mobile devices have been ordered and will be implemented by Spring 2006.

- CAD Software Upgrade - The software upgrade has been purchased and installed.

Projects Organization

Information Technology projects are organized into two broad categories:

Systems Development Projects, project 015-015, which is sub-divided as follows:

- Public Access Development

- Document Management Systems
- Financial Systems
- Geographic Information Systems
- Public Safety Systems
- Recreation Systems
- Other Systems

Infrastructure Projects, project 015-014, which is sub-divided as follows:

- Local Area Network (LAN) infrastructure
- Wide Area Network (WAN) infrastructure
- Enterprise Services
- Other Infrastructure Projects

A summary of these projects and costs is shown on page 31, with operating budget impacts on page 35.

Project Priorities in the IT Plan

Each project in the IT Plan has been assigned a rating to reflect its overall priority to assist with decision-making and resource allocation. Each project has been assigned one of three ratings - essential, very desirable, or desirable - or a designation that the project is currently unrated.

Generally, the highest rating of "essential" has been applied to projects that are either:

- Required to address an urgent health or safety hazard;
- needed to meet legal requirements or State or federal mandates;
- essential to the success of other projects or a larger program in progress;
- cannot be deferred without the loss of substantial non-City funding; or
- required for economic growth and development.

Other projects have been rated as "very desirable" or "desirable" depending upon the extent and degree of benefit provided. Generally, projects that maintain or improve a current system's functionality are assigned priority over new projects that provide new system capabilities.

In addition, each project in the Information Technology Plan is linked with the City's Strategic Plan element that most closely represents what the project is supporting.

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Summary Totals

The following table summarizes spending on Information Technology for FY 2006 to FY 2011. Detailed descriptions follow the summary.

Information Technology
Capital Improvement Plan For FY 2007 to FY 2012
13-Jul-06

	CIP Project ID	Project Title	Net Totals	Net Balances Prior Year	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	*TOTAL Net Costs - All Information Technology CIP Projects*		*23,131,605*	5,071,910	4,609,500	4,996,655	2,962,999	2,242,856	1,841,640	1,406,045
2										
3	*015-015 Systems Development*		*15,505,910*	3,670,810	3,618,500	3,104,000	1,991,600	1,223,500	885,000	1,012,500
4										
5	*015-015-1A*	*Public Access Development*	*2,767,840*	*1,142,840*	*0*	*325,000*	*325,000*	*325,000*	*325,000*	*325,000*
6	015-015-10	Web Site Enhancements		717,340	0	125,000	125,000	125,000	125,000	125,000
7	015-015-4	Electronic Government		425,500	0	200,000	200,000	200,000	200,000	200,000
8	015-015-30	Public Access to Land Records		0	0	0	0	0	0	0
9										
10	*015-015-1*	*Document Management Systems*	*1,386,500*	*16,500*	*370,000*	*200,000*	*200,000*	*200,000*	*200,000*	*200,000*
11	015-015-1-3	MHMRSA Medical Records Management		16,500	0	0	0	0	0	0
12	015-015-21	Document Management and Imaging Infrastructure		0	370,000	200,000	200,000	200,000	200,000	200,000
13	015-015-1-4	Archives Records Management System Replacement		0	0	0	0	0	0	0
14										
15	*015-015-2*	*Financial Systems*	*3,939,980*	*1,099,980*	*480,000*	*1,360,000*	*1,000,000*	*0*	*0*	*0*
16	015-015-2-3	Real Estate Assessment and Accounts Receivable System Replacement		125,000	0	475,000	0	0	0	0
17	015-015-2-4	OMB Systems		0	0	75,000	0	0	0	0
18	015-015-2-5	Payroll/Personnel System			0	500,000	0	0	0	0
19		> Payroll Personnel Study		450,000	0	0	0	0	0	0
20		> Conversion Activities		250,000	0	0	0	0	0	0
21	015-015-7A	Remote Time and Attendance		50,000	0	0	0	0	0	0
22	015-015-2-8	Financial Accounting and Asset Management System		140,000	0	60,000	500,000	TBD	TBD	TBD
23	015-015-46	Revenue Collection Mgt. System		35,000	0	150,000	0	0	0	0
24	015-015-47	Business Tax Accounts Receivable System		49,980	100,000	0	0	0	0	0
25	015-015-48	Purchasing System Replacement		0	0	100,000	500,000	TBD	TBD	TBD
26	015-015-49	Personal Property Tax System		0	250,000	0	0	0	0	0
27	015-015-50	Cash Register Software Upgrade		0	130,000	0	0	0	0	0
28										
29	*015-015-3*	*Geographic Information Systems*	*1,267,100*	*383,600*	*433,500*	*90,000*	*90,000*	*90,000*	90,000	*90,000*
30	015-015-3-3	GIS Development		342,600	0	90,000	90,000	90,000	90,000	90,000
31	015-015-3-4	Highway Video Program		41,000	433,500	0	0	0	0	0
32										
33	*015-015-4*	*Public Safety Systems*	*4,638,890*	*272,290*	*2,160,000*	*694,000*	*341,600*	*573,500*	*235,000*	*362,500*
34	015-015-4-1	Public Safety Radio System Replacement		50,000	50,000	50,000	50,000	50,000	50,000	50,000
35	015-015-36	AJIS Enhancements		0	185,000	246,000	185,000	185,000	185,000	185,000
36	015-015-4-3	Police/Fire Computer Aided Dispatch (CAD)/RMS Project		172,290	425,000	275,000	106,600	338,500	0	127,500
37	015-015-34	Interoperability Strategies for Public Safety		0	0	0	0	0	0	0
38	015-015-33	Emergency Operations Center		50,000	0	0	0	0	0	0
39	015-015-38	E-911 Planning and System Replacement		0	1,500,000	0	0	0	0	0
40	015-015-39	EMS Records Management System		0	0	0	0	0	0	0
41	015-015-51	Sheriff Accreditation Training System		0	0	75,000	0	0	0	0
42	015-015-53	Sheriff Network Connectivity Conversion		0	0	48,000	0	0	0	0
43										

Information Technology
Capital Improvement Plan For FY 2007 to FY 2012
13-Jul-06

	CIP Project ID	Project Title	Net Totals	Net Balances Prior Year	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
44		*Recreation Systems*	*75,000*	*75,000*	*0*	*0*	*0*	*0*	*0*	*0*
45	015-015-5-2	Recreation Systems		75,000	0	0	0	0	0	0
46	015-015-5-3	Recreation Computer Laboratories		0	0	0	0	0	0	0
47										
48	*015-015-5*	*Other Systems*	*1,430,600*	*680,600*	*175,000*	*435,000*	*35,000*	*35,000*	*35,000*	*35,000*
49	015-015-5-1	Permit Processing		520,600	60,000	120,000	TBD	TBD	TBD	TBD
50	015-015-28	Intranet		105,000	0	10,000	10,000	10,000	10,000	10,000
51	015-015-29	TES Infrastructure Management and Maintenance System		0	0	0	0	0	0	0
52	015-015-32	Help Desk System		30,000	0	0	0	0	0	0
53	015-015-31	MHMRSA HIPAA Data Security Compliance		25,000	25,000	25,000	25,000	25,000	25,000	25,000
54	015-015-41	IT Project Management		0	50,000	0	0	0	0	0
55	015-015-42	DHS Payment System Replacement		0	40,000	280,000	0	0	0	0
56										
57	*015-014*	*Infrastructure Projects*	*7,625,695*	*1,401,100*	*991,000*	*1,892,655*	*971,399*	*1,019,356*	*956,640*	*393,545*
58										
59	*015-014-1*	*Local Area Network (LAN) Services*	*3,970,475*	*798,100*	*205,000*	*978,125*	*622,125*	*632,125*	*595,000*	*140,000*
60	015-014-1	LAN Backbone Capacity		100,000	0	50,000	50,000	50,000	50,000	50,000
61	015-014-1-2	Individual Building LAN Development		50,000	50,000	25,000	25,000	25,000	25,000	25,000
62	015-014-1-3	Upgrade Network Operating System		75,000	50,000	25,000	15,000	15,000	15,000	15,000
63	015-014-1-4	Upgrade Work Station Operating Systems		5,000	105,000	50,000	50,000	50,000	50,000	50,000
64	015-014-1-5	Network Infrastructure Hardware Upgrades/ Replacement		568,100	0	578,125	482,125	492,125	455,000	0
65	015-014-14	Storage Area Network		0	0	250,000	0	0	0	0
66										
67	*015-014-2*	*Wide Area Network (WAN) Services*	*2,368,220*	*361,000*	*336,000*	*594,530*	*329,274*	*277,231*	*236,640*	*233,545*
68	015-014-6	Institutional Network Development		0	0	0	0	0	0	0
69	015-014-8	Telephony Integration		50,000	246,000	464,530	199,274	187,231	171,640	208,545
70	015-014-3	Security		50,000	25,000	40,000	40,000	0	0	0
71	015-014-15	Application Deployment Management		108,000	25,000	25,000	25,000	25,000	25,000	25,000
72	015-014-13	Database Infrastructure		153,000	40,000	65,000	65,000	65,000	40,000	0
73										
74	*015-016*	*Enterprise Services*	*1,287,000*	*242,000*	*450,000*	*320,000*	*20,000*	*110,000*	*125,000*	*20,000*
75	015-016-1	E-mail Services		192,000	200,000	250,000	TBD	90,000	105,000	0
76	015-016-2	Wireless Initiatives (Information Utility)		50,000	0	70,000	20,000	20,000	20,000	20,000
77	015-016-3	MS Office Conversion		0	250,000	0	0	0	0	0
78										
79	*015-017*	*Other Infrastructure*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
80	015-017-2	Disaster Recovery - Hot Site		0	0	0	0	0	0	0

/1 - The cable television franchise agreement with AT&T/Comcast provides for Comcast to provide the City a base payment of approximately $665,000 per year, if the City provides matching funds which the City plans to provide.

CITY OF ALEXANDRIA
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Operating Budget Impacts

The following table summarizes the estimated impacts of the implementation of relevant projects included in the Information Technology Plan on the City's operating budget.

Information Technology
Capital Improvement Plan For FY 2007 to FY 2012 - Estimated Operating Impacts
13-Jul-06

	CIP Project ID	Project Title	Six Year Totals	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012
	(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)
1	*TOTAL Operating Costs - All Information Technology CIP Projects*		*7,082,950*	*1,248,450*	*1,241,700*	*1,256,700*	*1,316,700*	*1,241,700*	*777,700*
2									
3	*015-005 Systems Development*		*7,082,950*	*1,248,450*	*1,241,700*	*1,256,700*	*1,316,700*	*1,241,700*	*777,700*
4									
5	015-015-1A	Public Access Development	30,000	5,000	5,000	5,000	5,000	5,000	5,000
6	015-015-10	Web Site Enhancements		0	0	0	0	0	0
7	015-015-4	Electronic Government		5,000	5,000	5,000	5,000	5,000	5,000
8	015-015-30	Public Access to Land Records		0	0	0	0	0	0
9									
10	015-005-1	Document Management Systems	378,300	84,300	58,800	58,800	58,800	58,800	58,800
11	015-015-1-3	MHMRSA Medical Records Management		21,300	21,300	21,300	21,300	21,300	21,300
12	015-015-21	Document Management and Imaging Infrastructure		55,500	30,000	30,000	30,000	30,000	30,000
13	015-015-1-4	Archives Records Management System Replacement		7,500	7,500	7,500	7,500	7,500	7,500
14									
15	015-005-2	Financial Systems	1,798,500	278,500	286,000	301,000	361,000	286,000	286,000
16	015-015-2-3	Real Estate Assessment and Accounts Receivable System Replacement		30,000	30,000	30,000	30,000	30,000	30,000
17	015-015-2-4	OMB Systems		18,000	18,000	18,000	18,000	18,000	18,000
18	015-015-2-5	Payroll/Personnel System		0	0	0	0	0	0
19	015-015-7A	Remote Time and Attendance		38,000	38,000	38,000	38,000	38,000	38,000
20	015-015-2-8	Financial Accounting and Asset Management System		140,000	140,000	140,000	140,000	140,000	140,000
21	015-015-46	Revenue Collection Mgt. System		22,500	22,500	22,500	22,500	22,500	22,500
22	015-015-47	Business Tax Accounts Receivable System		30,000	30,000	30,000	30,000	30,000	30,000
23	015-015-48	Purchasing System Replacement		0	7,500	7,500	7,500	7,500	7,500
24	015-015-49	Personal Property Tax System		0	0	15,000	75,000	0	0
25	015-015-50	Cash Register Software Upgrade		0	0	0	0	0	0
26									
27	015-005-3	Geographic Information Systems	806,400	134,400	134,400	134,400	134,400	134,400	134,400
28	015-015-3-3	GIS Development		134,400	134,400	134,400	134,400	134,400	134,400
29	015-015-3-4	Highway Video Program		TBD	TBD	TBD	TBD	TBD	TBD
30									
31	015-005-4	Public Safety Systems	3,601,750	668,250	679,500	679,500	679,500	679,500	215,500
32	015-015-4-1	Public Safety Radio System Replacement		498,000	498,000	498,000	498,000	498,000	34,000
33	015-015-36	AJIS Enhancements		125,000	125,000	125,000	125,000	125,000	125,000
34	015-015-4-3	Police/Fire Computer Aided Dispatch (CAD)/RMS Project		0	0	0	0	0	0
35	015-015-34	Interoperability Strategies for Public Safety		0	0	0	0	0	0
36	015-015-33	Emergency Operations Center		11,250	11,250	11,250	11,250	11,250	11,250
37	015-015-38	E-911 Planning and System Replacement		0	0	0	0	0	0
38	015-015-39	EMS Records Management System		34,000	34,000	34,000	34,000	34,000	34,000
39	015-015-51	Sheriff Accreditation Training System		0	11,250	11,250	11,250	11,250	11,250
40	015-015-53	Sheriff Network Connectivity Conversion		0	0	0	0	0	0
41									

Information Technology
Capital Improvement Plan For FY 2007 to FY 2012 - Estimated Operating Impacts
13-Jul-06

	CIP Project ID	Project Title	Six Year Totals	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012
	(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)
42	015-015-5	Recreation Systems	36,000	6,000	6,000	6,000	6,000	6,000	6,000
43	015-015-5-2	Recreation Systems		6,000	6,000	6,000	6,000	6,000	6,000
44	015-015-5-3	Recreation Computer Laboratories		0	0	0	0	0	0
45									
46	015-005-5	Other Systems	432,000	72,000	72,000	72,000	72,000	72,000	72,000
47	015-015-5-1	Permit Processing		15,000	15,000	15,000	15,000	15,000	15,000
48	015-015-28	Intranet		0	0	0	0	0	0
49	015-015-29	TES Infrastructure Management and Maintenance System		11,250	11,250	11,250	11,250	11,250	11,250
50	015-015-31	MHMRSA HIPAA Data Security Compliance		0	0	0	0	0	0
51	015-015-32	Help Desk System		11,250	11,250	11,250	11,250	11,250	11,250
52	015-015-41	IT Project Management		4,500	4,500	4,500	4,500	4,500	4,500
53	015-015-42	DHS Payment System Replacement		30,000	30,000	30,000	30,000	30,000	30,000
54									
55	*015-004 Infrastructure Projects*		0	*0*	*0*	*0*	*0*	*0*	*0*
56									
57	015-004-1	Local Area Network (LAN) Services	0	0	0	0	0	0	0
58	015-014-1	LAN Backbone Capacity		0	0	0	0	0	0
59	015-014-1-2	Individual Building LAN Development		0	0	0	0	0	0
60	015-014-1-3	Upgrade Network Operating System		0	0	0	0	0	0
61	015-014-1-4	Upgrade Work Station Operating Systems		0	0	0	0	0	0
62	015-014-1-5	Network Infrastructure Hardware Upgrades/ Replacement		0	0	0	0	0	0
63	015-014-14	Storage Area Network		0	0	0	0	0	0
64									
65	015-004-2	Wide Area Network (WAN) Services	0	0	0	0	0	0	0
66	015-014-6	Institutional Network Development		0	0	0	0	0	0
67	015-014-8	Telephony Integration		0	0	0	0	0	0
68	015-014-3	Security		0	0	0	0	0	0
69	015-014-15	Application Deployment Management		0	0	0	0	0	0
70	015-014-13	Database Infrastructure		0	0	0	0	0	0
71									
72	015-016	Enterprise Services	0	0	0	0	0	0	0
73	015-016-1	E-mail Services		0	0	0	0	0	0
74	015-016-2	Wireless Initiatives (Information Utility)		0	0	0	0	0	0
75	015-016-3	MS Office Conversion		0	0	0	0	0	0
76									
77	015-017	Other Infrastructure	0	0	0	0	0	0	0
78	015-017-2	Disaster Recovery - Hot Site		0	0	0	0	0	0

CITY OF ALEXANDRIA
VIRGINIA

System Development Projects

This CIP project category includes development of computer application systems in finance, geographic information and public safety for departments and agencies, the development of automated document management services, and the development of the City's radio communications network for both public safety and operating government agencies.

Public Access Development

	Prior Year Unallocated	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Totals
Web Site Enhancements	717,340	0	125,000	125,000	125,000	125,000	125,000	1,342,340
Electronic Government	425,500	0	200,000	200,000	200,000	200,000	200,000	1,425,500
Public Access to Land Records	0	0	0	0	0	0	0	0
Totals	**1,142,840**	**0**	**325,000**	**325,000**	**325,000**	**325,000**	**325,000**	**2,767,840**

Web Site Enhancements
(015-015-10) Priority: Very Desirable

Relationship to City's Strategic Plan
"Always looking to the future and for ways to get better."

This project includes enhancements to, and applications for, the City of Alexandria's public web site at *alexandriava.gov*.

Monies in this project fund the ongoing development and evolution of departmental pages on the City web site. Additional web site enhancements and applications are evaluated on a regular basis with input from the Commission on Information Technology, the Information Technologies Steering Committee, and the Alexandria Communicators.

Over the next year, web site enhancements will include:

Accessibility and Language - The City's homepage is compliant with federal ADA guidelines to assist web users with disabilities. All departmental and new development content is compliant with these guidelines. A key requirement of the new site design and content management system is that all content be inherently compliant. The City is also working to add more web content in Spanish and other languages.

Content Management System - The current web site is maintained using mostly manual processes, and most content is converted and edited by the E-Government Team. The City will procure a new content management system to automate these processes, which

will allow departmental staff to create and maintain their own web content. This will permit the E-Government Team to shift their work focus to complex web work and new application development.

Continued Site Redesign - The City's web site will be redesigned in 2006 to improve navigability and keep the look and feel fresh.

Emergency Preparedness and Disaster Recovery - With increased reliance on the web site for emergency communications and operations, the City's web servers are being moved to a state-of-the-art data center operated by a company in Fairfax County that will provide better protection against threats and enhanced recovery ability after a disaster. A backup site will also be established.

Geographic Information System (GIS) - Using the web map viewer as a foundation, the E-Government Team will continue to work with Planning & Zoning's GIS Office to integrate GIS data and other web content.

New Media - The goal of e-government is to bring government to the customer, using technology to improve convenience and efficiency. This requires government to adapt to the technologies being used by customers, which increasingly include new media. For example, news headlines from the City's home page at *alexandriava.gov* are also published in the Really Simple Syndication (RSS) format, which allows users to subscribe to the content with an aggregator (reader client). A key benefit of RSS for the City is that other web sites, such as neighborhood associations or local businesses, can incorporate City content automatically. This helps the City reach larger audiences with important information. Future applications of RSS will include content such as job listings, requests for proposals, and calendars of events. The City has begun using podcasting (the use of RSS to deliver audio files) to reach new audiences. The Office of Historic Alexandria is producing podcasted walking tours, which work like museum audioguides to encourage people to visit Alexandria's many historic attractions. The Office on Women has produced a monthly podcast on women's issues since October 2005, and is embracing new media to reach teens as part of its adolescent pregnancy, domestic violence, and sexual assault programs. Teens can send text messages to hotline counselors, and the counselors will reply via text message.

Online Payments - The E-Government Team will continue to work with the Finance Department to expand the availability of online payment methods, including credit cards and e-checks, with an emphasis on improving customer convenience, reducing fees, and creating internal efficiencies.

Online Permitting - The E-Government Team will work with the Department of Planning and Zoning and the Code Enforcement Bureau to allow customers to apply for, pay for, and check the status of building, planning, and zoning permits.

Webcasting - City Council and Planning Commission meetings are now available in streaming video, with links between meeting dockets and the corresponding time points in the video. The City's web site will make increased use of streaming video and live

"webcasting" to present informational videos (such as training sessions and public service announcements) and other public meetings (potentially the Board of Architectural Review and the Board of Zoning Appeals).

These are just a few of the many potential uses which will require resources in 2006-2007. The public's reliance on the web site and the increasing use by staff of the Internet for work purposes continues to place a load on both equipment and telecommunications capacity. Residents increasingly come to depend on the web site as their "electronic city hall."

Operating Budget Impact:

The growth of the City's web site, coupled with the increasing complexity of the site, has increased demands on staff for maintenance of the site.

Project Benefit:

This project provides enhanced services to the public by making information about the City government available 24 hours a day. In addition, the City's web site provides the platform for delivering certain kinds of City services in a more cost-effective and convenient manner.

Change In Project From Prior Fiscal Years:

Sufficient prior-year funds remain such that no funds are requested for this project for FY 2007. Funding of $125,000 per year has been extended for remaining years through FY 2012, to reflect the ongoing work supported in this category.

Electronic Government
(015-015-4) Priority: Very Desirable

Relationship to City's Strategic Plan
"Ensure City services are responsive to changing needs."

The City of Alexandria's E-Government project has been developed to aid in the identification of goals and associated monetary requirements to expand and develop current e-government initiatives within the City. Electronic media are becoming increasingly popular and useful as a means of communication and providing services. As technology continues to evolve, so do the methods to develop e-government services to take advantage of these technologies to produce efficiencies in traditional business practices, providing better customer service in the delivery of government services and information.

E-Government services within the City of Alexandria are provided through a variety of electronic methods to City constituent groups (residents, employees, visitors, businesses and other governmental entities) to improve traditional interactions with the City.

Many of the projects within the six-year Information Technology Plan, while perhaps not purely e-government projects, contain e-government elements and funding. The chart below shows the e-government initiatives being funded in the projects included in this plan.

E-Government Initiatives within the FY 2007 - 2012 IT Plan		
Project Name	**Initiative**	**FY 2007 Funding Request**
Public Access to Land Records, page 43	To provide access to the Alexandria Circuit Court land records and related documents on the Internet.	$0; this project is underwritten by the State
Online Payments(see Web Site Enhancements project, page 39)	To expand and improve online services to allow customers to research and pay taxes, tickets, fees, and other payments with e-checks and credit cards.	$30,000 in prior year project funds will be used to improve this service
Geographic Information Systems, page 57	To provide Internet access to maps and map data, and to provide application access through the intranet.	$35,000 for Internet/intranet initiatives
Alexandria Justice Information System Enhancements, page 62	To develop enhancements to the system.	$185,000, a portion of which will be used for E-Government
Recreation Systems, page 71	To provide telephone registration for recreation classes.	$0, there are sufficient prior year resources to address this need.
Permitting Systems, page 73	To provide telephone and online inspection scheduling, and provide mobile access to the application.	$60,000, a portion of which will be used for E-Government
Content Management System(see Web Site Enhancements project, page 39)	To provide for a centralized system that will allow employees to create and maintain content on the City's web sites and automated many administration functions.	$0, there are sufficient prior year resources to address this need.
Intranet (CityNet), page 75	To provide access to employees to a variety of City-specific data. In the future, to provide access to some applications.	$0, there are sufficient prior year resources to address this need.

Please refer to the specifics on each project in this plan for additional information. Please refer to the overall funding on page 31 for information on the FY 2007 - 2012 six-year funding for each of these projects.

Project Benefit:

Prospective new e-government initiatives are reviewed for conformance to the City's e-government strategic principles (see E-Government Guiding Principles, page 13) to ensure that services are developed that are consistent with the needs of our customers, are economical to deploy and maintain, are secure and have value.

Change in Project from Prior Fiscal Years:

Sufficient prior-year funds remain such that no funds are requested for this project for FY 2007. Funding of $200,000 per year has been extended for remaining years through FY 2012, to reflect the increasing work supported in this category.

Public Access to Land Records
(015-015-30) Priority: Very Desirable

Relationship to City's Strategic Plan
"Residents have convenient access to City government and services."

The purpose of this project is to make available the Alexandria Circuit Court land records and related documents on the Internet. The following table shows the land records and indexes and their status with regard to conversion to a format accessible through the Internet.

Date of Records	Status
Land Records from 1930 - 1993	Conversion to Internet readable format complete.
Land Records from October 1993 - October 1999	Conversion to Internet readable format complete.
Land Records from October 1999 - present and future	Conversion to Internet readable format complete.
Indexes from 1930 - 1991	Conversion to Internet readable format complete.
Indexes from 1992 - present	Currently available on RMS.
Indexes from 1992 - present and future	Linked to images of actual recorded documents.

All the above records and indexes have been converted to a format compatible with web browser access with imaging. The records and indexes will be placed on a separate public access server isolated from the daily operating Records Management System (RMS). The City will provide links from the Clerk of Court page on the City's web site to access the land records data. In FY 2002, land records from 1970 through 1999 were converted to digital TIFF format, the format used by the State Supreme Court. The indexes have been converted. This year, FY 2005, the indexes from 1930 to 1969 were converted to a format used by the Supreme Court for incorporation into RMS at a future date. The images from 1985 - 1999 are currently in the process of being linked to the RMS indexes.

The Virginia General Assembly initiated a project to automate and create remote access to the Commonwealth's land records by funding through the Technology Trust Fund (TTF) (administered by the State Compensation Board and the Council on Information Management). The Clerk of Circuit Court is the official custodian of these records.

The initial phase in which the records were converted from CD and microfilm to a format accessible through the Internet and has been accomplished. Circuit Court and Supreme Court staff are performing the second phase of the work, to link the indexes to scanned images. After these initial phases there will be ongoing conversion of records and uploading data plus any normal system maintenance.

This project is a part of the initiative to provide public access to Office of the Clerk of Court's public records. See page 62 for additional information regarding this initiative and the provision of access to records maintained in the Alexandria Justice Information System (AJIS).

The Clerk of Courts has contracted with the State Supreme Court to provide Internet access to these documents. It is anticipated that this service will be funded by the Clerk's technology surcharge of $5 for every document filed with this office.

Project Benefit:

This project will make the land records of the City of Alexandria electronically available to other City agencies and paid subscribers. As paper records age, they become more fragile and handling hastens their deterioration. Also, as more of these records are put into digital format, access becomes limited to the number of PC's that can be accommodated in the space of the Clerk's Office record room. Remote access provides access to essential land records 24 hours a day, gives other City agencies immediate access to the official land records in their own offices, protects the original records from additional handling, and gives access to title attorneys and real estate personnel who subscribe to more efficiently serve residents involved in real estate transactions in the City of Alexandria.

Change In Project From Prior Fiscal Years:

The Clerk's office intends on meeting the July 1, 2006 State-mandated deadline for making these records Internet-available.

DOCUMENT MANAGEMENT SYSTEMS

	Prior Year Unallocated	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Totals
MHMRSA Medical Records Management	16,500	0	0	0	0	0	0	16,500
Document Management and Imaging Infrastructure	0	370,000	200,000	200,000	200,000	200,000	200,000	1,370,000
Archives Records Management System Replacement	0	0	0	0	0	0	0	0
Totals	**16,500**	**370,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,386,500**

MH/MR/SA Medical Records Management System
(015-015-1-3) Priority: Very Desirable

Relationship to City's Strategic Plan
"Ensure City services are responsive to the changing needs of our community."

In 1998, the Department of Mental Health, Mental Retardation and Substance Abuse purchased a client-server based comprehensive client database, assessment and treatment planning system (Anasazi). With the department serving approximately 4,500 individuals each year, Anasazi provides a comprehensive data management and billing system to handle all client and third party billing, including managed care, as well as department, City, State and Federal reporting requirements. Additionally, the Anasazi software offers a fully integrated automated client medical records system that provides for one clinical record per client that satisfies both managed care and national accreditation standards.

During FY 2005 the department's focus was on continuing the process of transitioning to the new Health Insurance Portability and Accountability Act1 (HIPAA)-compliant version of Anasazi. Some key accomplishments were:

- Converted the Anasazi DataFLEX database to MS SQL.
- Developed an automated log-shipping method to update the new hot-backup MS SQL Anasazi database server.
- Began testing Anasazi's new HIPAA-compliant Treatment Planning module.
- Upgrading departmental servers from Windows 2000 to Windows 2003

Plans for Anasazi include implementing electronic signatures (biometric fingerprints for employees and electronically captured handwritten signatures for consumers) and storing scanned documents associated with clinical records.

Project Benefit:

The record system has eased State reporting requirements by providing 'one button' State reports, and helped ensure continued licensure and other regulatory compliance. The system enhancements will help ensure compliance with the changes in Federal and State regulations, and will enhance the security and reliability of our medical records database. They will also greatly enhance our migration to a paperless medical record as well as facilitate Medicaid reimbursement.

Change In Project From Prior Fiscal Years:

There is no change to this project from the prior fiscal year.

Document Management and Imaging Infrastructure
(015-015-21) Priority: Very Desirable

Relationship to City's Strategic Plan
"Always looking to the future and for ways to get better."

A number of City departments and agencies continue to express a need for electronic storage and retrieval of documents through a Document Management and Imaging System. The implementation of a Document Management and Imaging System will improve customer service by providing retrievable and recoverable information, improvements to staff productivity by allowing faster retrieval of electronic documents (versus the current process of trying to locate hard copy documents), improved security, and improve file management over current methods utilized. The Document Management and Imaging System will not only provide a more efficient and reliable information filing system, but will also allow redefinition of some of the more cumbersome work processes in the City.

Project Benefit:

The Document Imaging project will provide convenient access to information and related services to residents, businesses and City staff, as well as promote data integration, improve security, and reduce paper storage requirements.

City Departments are currently working on Phase II of this project. This phase addresses the imaging needs of the Police, Transportation and Environmental Services, Planning and Zoning, Finance and Information Technology Services departments.

The Police Department has completed phase I which addressed the imaging of both past and present arrest records. They are currently working on phase II which addresses the need to automatically image the on-line accident reports from squad cars.

Transportation and Environmental Services, Planning and Zoning, Finance and the Information Technology Services departments have met with the City's imaging vendor, received estimates, and been approved by the Imaging Steering Subcommittee (ISS) of the Information Technology Steering Committee (ITSC) to proceed.

The ISS works to coordinate the prioritization, scheduling and completion of these projects and ensures there is adequate funding in the project for each requesting department's imaging initiative.

Many of the documents processed within the Transportation and Environmental Services, are blue prints, e-mails and associated attachments. Such attachments may include electronic documents or drawings, and digital pictures. Planning and Zoning is working towards imaging the special use permits which are currently on microfiche. Finance and Information Technology Services are working jointly to capture invoices out of the Accounting system.

Personnel Services Department has met with the City's imaging vendor and received an estimate. Prior to moving forward, they will review the imaging procedures of other neighboring municipalities. A major interest for Personnel is the imaging of the employee's service cards and personnel action forms.

Change In Project From Prior Fiscal Years:

A total of $370,000 is included in FY 2007 funding to provide additional monies for departmental imaging projects, and to eliminate separately requested and budgeted projects. An additional $200,000 is budgeted in FY 2008 to provide funds for back imaging requests for T&ES and Code Enforcement (a 5-year plan).

Archives and Records Center Records Management System Replacement
(015-015-1-4) Priority: Very Desirable

The Archives and Records Center provides archives and records management services to all City of Alexandria departments. The Center offers file and box tracking, check-out and check-in services, file retrieval, box entry and retrieval, accessioning, box storage, records management training, research services, records management advice, and destruction services. All of these functions require the use of records management software.

Relationship to City's Strategic Plan
"Ensure City services are responsive to changing needs."

The Archives and Records Center has been using GAIN for Windows (Triadd Software) since April 1996 to track (accession, check out, check in, and destroy) the approximately 15,000+ boxes of records (and hundreds of thousands of files) that are stored at the City's Payne Street Storage Facility. This number includes records from the majority of the City of Alexandria's departments and increases annually since the number of boxes that are

accessioned and must be stored always exceeds the number that are eligible for destruction. An additional 2,000 boxes are located off-site at a commercial records storage facility in Springfield. These boxes are tracked using dBase III rather than GAIN for Windows because the latter does not support off-site storage well.

Project Benefit:

Immediate planning for replacing GAIN for Windows is essential for the following reasons. First, the current application does not operate with Windows 2000 and cannot be expected to work with subsequent operating systems. Second, Triadd Software has informed users that support for the current product will cease December 2006. Upgrading to a newer product will improve the City's ability to secure, back up and manage the records data. In addition, it is anticipated that Center users will be able to access the application to perform inquiries about their records, a convenience that is not available with the current application.

Operating Budget Impacts:

Annual maintenance costs/technical support are anticipated to run around $7,500.

Change In Project From Prior Fiscal Years:

An RFP for a solution will be issued in early 2006, and the product will be implemented by fall 2006.

FINANCIAL SYSTEMS

	Prior Year Unallocated	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Totals
Real Estate Assessment and Accounts Receivable System Replacement	125,000	0	475,000	0	0	0	0	600,000
OMB Systems	0	0	75,000	0	0	0	0	75,000
Payroll/Personnel System								
> Payroll Personnel Study	450,000	0	0	0	0	0	0	450,000
> Conversion Activities	250,000	0	0	0	0	0	0	250,000
> System Replacement	0	0	500,000	0	0	0	0	500,000
Totals	**700,000**	**0**	**500,000**	**0**	**0**	**0**	**0**	**1,200,000**
Remote Time and Attendance	50,000	0	0	0	0	0	0	50,000
Financial Accounting and Asset Management System	140,000	0	60,000	500,000	TBD	TBD	TBD	700,000
Revenue Collection Mgt. System	35,000	0	150,000	0	0	0	0	185,000
Business Tax Accounts Receivable System	49,980	100,000	0	0	0	0	0	149,980
Purchasing System Replacement	0	0	100,000	500,000	TBD	TBD	TBD	600,000
Personal Property Tax System	0	250,000	0	0	0	0	0	250,000
Cash Register Software Upgrade	0	130,000	0	0	0	0	0	130,000
Totals	**1,099,980**	**480,000**	**1,360,000**	**1,000,000**	**0**	**0**	**0**	**3,939,980**

Real Estate Assessment and Accounts Receivable System Replacement

(015-015-2-3) Priority: Essential (CARAT) Priority: Desirable (REAR)

Relationship to City's Strategic Plan
"Achieve and maintain a high level of community satisfaction with City services."

In 1991 the City's Real Estate Assessment System (CARAT) was the first mainframe system migrated to a LAN-based system. In 1994 the City's mainframe Real Estate Accounts Receivable (REAR) system was also migrated from the mainframe to a LAN environment and, at the same time, was integrated with CARAT so that appropriate changes in one system would be reflected in the other. The migration and integration of CARAT and REAR, however, did not fundamentally change either the program structure or the database engine. This project plans to replace both systems to exploit a graphical user interface (GUI) in a Windows environment and to use the City standard for database engines. Redeveloping these systems in a standard database is critical to the future integration of a Geographic

Information System (GIS) (page 57), Permit Processing (page 73), and other real property based systems. The CARAT system replacement was funded in FY 2006 and prior years. The REAR system replacement is planned for FY 2007 at a cost of $400,000.

The City awarded a contract to Colorado Custom Ware for their 'RealWare' assessment and appraisal application. The implementation of the RealWare application is currently underway, and is expected to take up to two years to implement to allow the Real Estate staff a full assessment cycle to ensure that the costing models employed in the new system are not materially different from the costing models in the current system. Accurate costing of properties is key to supporting accurate and uniform property assessments.

Project Benefit:

This project will enhance staff productivity through improved processing speed, precise and accurate data to allow for additional tools for analysis in determining property valuations. System operation will be greatly improved and data available to the public will be more detailed in nature. New reporting tools will provide staff with the ability to be more responsive to requests for information.

Change In Project From Prior Fiscal Years:

$475,000 previously programmed in FY 2007 has been moved out to FY 2008 to reflect a more logical schedule of when these funds will be warranted for this project.

OMB Systems
(015-015-2-4) Priority: Very Desirable

Relationship to City's Strategic Plan
"Improve Community Understanding of all aspects of City government: services, finances, processes and decisions."

This project supports ongoing improvements and modifications in the City's budget systems. In 2000, the City replaced an older DOS-based budget preparation system with Performance Budgeting, a module from the City's General Ledger accounting system. The City's vendor is expected to introduce a web-based version of the software that the City anticipates implementing when this becomes available. An amount of $75,000 is included in FY 2008 for the web version of this product.

Project Benefit:

This project improves productivity through the upgrade and maintenance of the City's budget preparation system, used by every City department, that simplifies departmental budget submissions. The system also provides improvements to the personnel services cost analysis system, reducing staff effort in analyzing personnel costs and improving the accuracy of the systems' products.

Operating Budget Impact:

The maintenance costs of the Performance Budget system are estimated to be $20,000 annually.

Change in Project from Prior Fiscal Years:

Monies budgeted in FY 2008 are for a web-based replacement product when this may become available from the current Performance Budgeting vendor. The monies had been in FY 2007, but were moved out a year to reflect the more probable vendor project timeline.

Payroll/Personnel System
(015-015-2-5) Priority: Very Desirable

Relationship to City's Strategic Plan
"Deliver services in the most cost-effective manner."

The City's payroll system is a 1984 mainframe system that does not adequately incorporate many human resources capabilities, such as application tracking, position control or benefits administration. The City needs a fully integrated, client-server or web-based system to better manage our human resources which are by far the City's largest expenditure.

The City currently contracts with Arlington County to use the County's mainframe computer to run the City's payroll system. Arlington has notified the City that its conversion to a server-based ERP system in mid-2006 will mean that Alexandria needs to move its payroll system from Arlington's mainframe. As a result, the City's current payroll system is planned to be converted to a server-based system which will be located in the City's ITS Network Operations Center (NOC). It is anticipated that $250,000 in prior year monies will be used for the system conversion.

To improve the capture of time and attendance, work began in FY 2001 to phase in an automated Remote Time and Attendance system (Kronos is the system purchased). It is anticipated that the phases of the implementation will continue through FY 2006. This system works in concert with the existing Payroll/Personnel system.

Project Benefit:

This project will enhance productivity through more effective, secure and reliable distribution of payroll and personnel data to staff, through the automation of processes that are currently manual (such as COBRA management, which allows certain former employees to buy temporary health insurance at group rates) and the implementation of position control to ensure that budgeted positions are appropriately requisitioned and filled.

Change In Project From Prior Fiscal Years:

Monies for a new Payroll/Personnel system which would eventuall replace the converted system, have not been increased pending recommendations made following a planned system evaluation. Depending on the system eventually selected, the cost for a completely new system could significantly exceed $1 million plus substantially increased annual operating and maintenance costs. Staff and consultants in 2006 will start evaluating all options to find the system that meets our needs and for which return-on-investment (ROI) can be justified. Monies in the amount of $500,000 budgeted in FY 2007 have been reprogrammed to FY 2008. When a new system may be implemented has not been determined.

Financial Accounting and Asset Management System
(015-015-2-8) Priority: Desirable

Relationship to City's Strategic Plan
"Improve Community Understanding of all aspects of City government: services, finances, processes and decisions."

This project provides for ongoing version maintenance, upgrades and eventual replacement of the City's general ledger and asset management and reporting system. The existing system, "Performance Series" from Tier Technologies, was placed in production in the fourth quarter of FY 1998, replacing the City's 15 year-old mainframe general ledger accounting system. In its current version and platform, the system is nearing the end of its useful lifecycle from both a technical and functional standpoint. Although the current system includes technology that provides departments and agencies with additional flexibility in managing, accessing and controlling financial information, it is not integrated with the City's current purchasing system and relies heavily on batch interfaces with other systems. Replacement of the general ledger, budgeting and asset management system has been rescheduled from FY-2010 to FY-2009 to coincide with replacement of the purchasing system in order to achieve full integration with the purchasing function. Beginning in FY 2007, Finance staff anticipates beginning a review of the current accounting system in the context of available new technology and the City's other planned changes for the purchasing system and the human resource/ payroll system.

Operating Budget Impact:

Annual maintenance for the general ledger accounting system, which includes the fixed assets module, is approximately $140,000 per year.

Change In Project From Prior Fiscal Years:

The FY 2007 funds were reduced by $120,000 due to a delay in the vendor's release of a web-based product.

Revenue Collection Management System
(015-015-46) Priority: Desirable

Relationship to City's Strategic Plan
"Deliver services in the most cost-effective manner."

The Finance Department is seeking to increase delinquent tax revenue collections by implementing a commercial-off-the-shelf (COTS)-based integrated revenue collection system that would better assist staff managing the collection of delinquent accounts. This system, which would be similar to what private collection agencies use, would age the tax accounts receivable function, assign the appropriate collection staff, monitor the staff's collection efforts, and automatically generate delinquent notice letters. The Finance Department's Revenue Division is currently collecting receivables without an automated collection system. Most accounts are maintained manually. Some databases and spreadsheets, which lack full collection functionality, are also used. The Revenue Division does have a small database application to track audits, field activity and bankruptcies, but all lack an interface to other City financial information systems.

Operating Budget Impact:

Annual maintenance of this product is anticipated to cost approximately $22,500.

Project Benefit:

With the implementation of an integrated revenue collection system, the ability to target revenue across multiple tax systems would enhance the City's ability to collect delinquent accounts and to manage a taxpayer's delinquencies. A revenue collection management system would streamline and increase the efficiency of the delinquent tax collection process. The cost of this system is likely to be recouped by increased delivered tax collections within twelve months of its installation.

Change in Project From Prior Fiscal Years:

This project is being delayed until FY 2008 in order to plan and coordinate it with the technology and platform(s) used for all tax billing and receivable systems.

Business Tax Accounts Receivable
(015-015-47) Priority: Very Desirable

Relationship to City's Strategic Plan
"City government that is…efficient and community-oriented."

This project provides funding to complete the implementation of the City's business tax accounts receivable software. This new software will replace an outdated system. The enhancements to the Business Tax system will be beneficial to both taxpayers and staff by automating the recording of tax returns, assessments, billing and the collection of payments. The completed project will reduce waiting time for citizens and business applicants appearing in person while tax accounts are created, edited and assessed for immediate payment at the Treasury window.

Project Benefit:

Improved efficiency through a new user application interface will ensure a more suitable and reliable system environment. The new system will eliminate the need to manually key tax returns received in bulk through the bank lockbox. It is also envisioned that the enhancements will be more suited to web integration, as well as interface with other City systems.

Change in Project from Prior Fiscal Years:

There are no changes in this project from the prior fiscal year.

Purchasing System Replacement
(015-015-48) Priority: Desirable

Relationship to City's Strategic Plan
"Deliver services in the most cost-effective manner."

This project provides for replacement of the City's current purchasing system. The current system is not integrated with the present general ledger accounting system, which is also scheduled for replacement in FY 2009. The lack of integration with the accounting system perpetuates the need for maintaining a parallel, manual system for the preparation, approval and tracking of departmental purchase orders. This creates inefficiencies as Agency Purchase Orders / Purchase Requisitions are prepared and approved manually, while the purchase order data is then manually and independently entered in both the accounting and purchasing systems. Vendors are paid through the accounting system and the vendor balances in the purchasing system are not updated through any kind of automated interface.

In order to improve the quality and timeliness of critical financial information, the existing purchasing system is scheduled for replacement in FY 2009 after initial research and requirements have been defined in FY 2008.

Project Benefit:

A fully functional purchasing system, incorporating all of the work flow and real time data interface features required, will provide significant internal efficiencies by eliminating duplicated effort. It is envisioned that the new system will provide a high level of functionality to vendors with respect to e-procurement via a WEB interface, as well as the ability to automate e-payments to vendors and a reduction of manual check processing and delivery.

Operating Budget Impact:

It is estimated that approximately $45,000 may be required for annual maintenance beginning in FY 2010 although there may be economies of scale as the system will be fully integrated with the new accounting system.

Change In Project From Prior Fiscal Years:

There are no changes in this project from the prior fiscal year.

Personal Property Tax System Replacement
(015-015-49) Priority: Desirable

Relationship to City's Strategic Plan
"Ensure City services are responsive to changing needs.

This project provides for enhancement of the personal property tax system. The City's personal property tax system exists on an older development platform which should be updated to reduce staff hours required to support the application. Funds in the amount of $250,000 are included in FY 2007 for the re-write of this application on a platform that is comparable and compatible with those being used by the other tax systems.

Project Benefit:

Redeveloping the current system will provide the means for achieving other efficiencies through the use of real time interfaces and will result in a reduction of manual work and batch processes. It is envisioned that citizens will be able to view and update their tax account data in real time via the City's web site. This will redirect a considerable staff effort currently spent doing data entry to reviewing and editing data and collecting taxes.

Operating Budget Impact:

There is no significant impact on operating costs other than internal costs for support which are likely to be less than or equal to current levels.

Change In Project From Prior Fiscal Years:

Funds in the amount of $250,000 are included in FY 2007 to begin this project.

Cash Register Software Upgrade
(015-015-50) Priority: Very Desirable

Relationship to City's Strategic Plan
"Ensure City services are responsive to changing needs."

This project provides for the upgrade and enhancement of the Treasury Division's automated cash register system. PCI's Revenue Collection System was implemented as a stand-alone cashiering solution in 1995. While the cash register hardware and peripherals were partially upgraded in FY-2003 in order to operate under Win2000, the obsolete software platform, "BTrieve" (Pervasive SQL) was not upgraded. The City is currently the last site still running the obsolete version of the RCS cash register system based on BTrieve. The vendor, PCI, will currently support but no longer advance the

City's system without costly programming charges. As the City is unable to provide any "BTrieve" support, the cash register system should migrate to PCI's MS SQL database version before the vendor completely ceases support for the BTtrieve version.

Project Benefit:

By upgrading the cash register system, the City's Treasury Division will have a more current database platform capable of easier integration with other receivable systems running on the same platform. This solution will provide a means to creating increased functionality for the City's residents and staff. The additional functionality envisioned will permit acceptance of debit cards, providing the City's residents with an additional payment option as well as the ability for cashiers to review all tax and parking ticket balances in real time.

Change In Project From Prior Fiscal Years:

There are no changes in this project from the prior fiscal year.

GEOGRAPHIC INFORMATION SYSTEMS

	Prior Year Unallocated	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Totals
GIS Development	342,600	0	90,000	90,000	90,000	90,000	90,000	792,600
Highway Video Program								
Expenditure Totals	41,000	2,089,990	0	0	0	0	0	2,130,990
Less: Revenue Totals	0	-1,656,490	0	0	0	0	0	-1,656,490
Net City Cost	41,000	433,500	0	0	0	0	0	474,500
Totals	**383,600**	**433,500**	**90,000**	**90,000**	**90,000**	**90,000**	**90,000**	**1,267,100**

GIS Development
(015-015-3-3) Priority: Very Desirable

Relationship to City's Strategic Plan
"Always looking to the future and for ways to get better."

Continued success of the Geographic Information System (GIS) is focused in two areas; data development and maintenance and data distribution. These project areas are equally important to the success of Alexandria's enterprise GIS.

GIS Data/Layer Development and Maintenance

The capital request for layer development for this project is sufficient to complete the layers currently listed as priorities in the capital plan (Appendix C, page ??). The funding will allow new critical layers to continue to be added to the system over time. Layer priority is determined by the GIS Steering Committee based on both need and the development status of supporting data.

During FY 2007 the GIS will require a new terrain model. Building a terrain model is the most expensive part of the GIS base mapping program and is scheduled for every 6th year. This was last done in FY 2001 and is needed to maintain a consistent level of accuracy throughout the system.

During FY 2007 GIS will continue to pursue the next level of GIS development; integrating GIS layers with other forms of enterprise data such as Real Estate Assessment's new mass appraisal system and the City's permitting application. During FY 2006 GIS took a big step forward with this objective by fully absorbing the addressing responsibilities for City applications as a core function. Current efforts now center on cleaning up address information in existing enterprise databases to ensure clean linkages to the data, as well as efficiently modeling data from these systems to represent them effectively within the GIS. Integration with other enterprise systems is a high priority for 2007.

Hardware/Software/Training

The City currently maintains 17 GIS product licenses plus extensions. These shared licenses support most of the City's GIS user community. Five licenses are ArcINFO and are used primarily by the GIS Division staff. Twelve licenses are ArcView and are shared throughout the City's GIS user community. Extensions maintained by GIS include 3D Analyst, Tracking Analyst, Spatial Analyst and Stereo Analyst. During FY 2007 an evaluation of software usage will be undertaken to determine whether changes need to be made to current licensing. In addition, now that the GIS program is mature a fresh look at department-specific GIS centric applications will be undertaken.

During FY 2006 GIS continued to focus on increasing awareness and use of GIS throughout the City. During this time the training class, "Introduction to ArcExplorer" has continued to be taught, however, Web-based GIS is slowly supplanting use of this application. As a result, this class is now being taught 6 times a year instead of 12. Both methods are available and widely used throughout the City. During FY 2006 the number of mid-level users accessing the much more powerful ArcView client has had an increase. We have now trained approximately 40 users Citywide since the inception of our training class series in March 2004. ArcView classes are now taught three times annually.

Updates to the class materials to reflect both upgrades in software and changes to how GIS data and services are maintain and distributed are required and are scheduled for late FY 2007.

In FY 2007, The GIS Division will need to replace its plotter. In addition, a new ArcIMS server may be needed to handle the load produced by the planned large increase in IMS Internet applications.

Internet Access

In FY 2006 many more users were introduced to GIS through intuitive ArcIMS applications now being deployed. As the GIS is distributed and used more extensively throughout the City, this is quickly becoming the best method to bring targeted GIS benefits to end users. (See Completed ArcIMS Applications matrix).

Externally there will be a major effort to communicate spatially to the public through dynamic ArcIMS applications in FY 2007. A complete rewrite of the flagship IMS application, "The Parcel Viewer" was completed in FY 2006. The method of deployment was redesigned to facilitate near real time updating of data for web-based applications. Development of the suite of external mapping applications originally slated for FY 2006 will be undertaken in FY 2007.

Operating Budget Impact:

The Department of Planning and Zoning is responsible for management of the GIS. A staff of six (a GIS Manager and two GIS Specialists, a Planning Assistant, a Cartographer, and a Senior GIS Planning Technician) are currently responsible for

implementing the enterprise GIS function as well as supporting the GIS needs of Planning and Zoning. Staff time is evenly split between these two functions. An ITS Database Administrator supports the back-end databases and facilitates access to other enterprise data sources.

Project Benefit:

Geographic Information Systems enhance productivity by providing a tie between seemingly disparate data. GIS enables numerous departments to share resources and reduce research, analysis and data collection burdens. It serves as a data warehouse for many of the City's critical layers such as roads, buildings and parcels. It creates a centralized responsibility for the maintenance and dissemination of these layers. GIS simultaneously updates map data City-wide and ensures all City agencies have access to identical spatial data. The City staff and the public are provided with quick access to consistent answers City wide. GIS enables staff to provide the City Council, various boards and commissions and the public with accurate maps which help synthesize significant amounts of information about geographic related issues such as zoning, demographics, routing and infrastructure.

Change In Project From Prior Fiscal Year:

This project is able to forego funding in FY 2007 due to an availability of prior year resources.

Highway Video Program
(015-015-3-4) Priority: Essential

Relationship to City's Strategic Plan
"Always looking to the future and for ways to get better."

The project seeks to improve several areas relating to traffic management, including the real-time response to congestion caused by daily traffic patterns and incidents, by providing live video images of intersections to the City's traffic control room, local first responders (fire and police), and other local jurisdictions. There will be a multi-pronged approach to achieving the goals of the project, thus several departments in the City will play key roles in the implementation of the goals. The communication technology for this project is a fiber optic network. In FY 2006, $41,000 in City funding was provided for the Highway Video Program/Intelligent Transportation System project to provide the required match for federal funding. In FY 2007, an additional $433,500 is required to match the federal grant funds being provided for this initiative.

Project Benefit:

This project is anticipated to provide benefits to many community stakeholders. By providing the capability to identify traffic problems in real-time, the City can centrally adjust traffic signal operations to clear the resulting congestion, as well as to optimize routing for emergency response units.

Operating Budget Impact:

This is unclear at this time. The communication medium will be fiber optics, with the exploration of other technologies (i.e. - wireless) to address concerns with construction.

Change in Project from Prior Fiscal Year:

There is no change to this project from the prior fiscal year.

PUBLIC SAFETY SYSTEMS

	Prior Year Unallocated	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Totals
Public Safety Radio System Replacement								
Expenditure Totals	50,000	50,000	50,000	50,000	50,000	50,000	50,000	350,000
Less: Federal Byrne Grant	0	0	0	0	0	0	0	0
Net City Cost	50,000	50,000	50,000	50,000	50,000	50,000	50,000	350,000
Alexandria Justice Information System (AJIS) Enhancements	0	185,000	246,000	185,000	185,000	185,000	185,000	1,171,000
Police/Fire Computer Aided Dispatch (CAD)/RMS Project	172,290	425,000	275,000	106,600	338,500	0	127,500	1,444,890
Interoperability Strategies for Public Safety								
Expenditure Totals	0	0	0	0	0	0	0	0
Less: Revenue Totals	0	0	0	0	0	0	0	0
Net City Cost	0	0	0	0	0	0	0	0
Emergency Operations Center								
Expenditure Totals	0	0	0	0	0	0	0	0
Less: Revenue Totals	0	0	0	0	0	0	0	0
Net City Cost	50,000	0	0	0	0	0	0	50,000
E-911 Planning and System Replacement	0	1,500,000	0	0	0	0	0	1,500,000
EMS Records Management System	0	0	0	0	0	0	0	0
Sheriff Accreditation Training System	0	0	75,000	0	0	0	0	75,000
Sheriff Network Connectivity Conversion	0	0	48,000	0	0	0	0	48,000
Totals	**272,290**	**2,160,000**	**694,000**	**341,600**	**573,500**	**235,000**	**362,500**	**4,638,890**

Radio System Replacement
(015-015-4-1) Priority: Essential

Relationship to City's Strategic Plan
"People feel safe and secure through the community."

This is a continuation of a project begun in FY 1997 to upgrade the City's 800 MHz shared radio system. Funding in FY 1999 provided for the phased replacement of obsolete mobile and portable radios utilized by City agencies, provided a backup conventional radio system and increased the capacity of the City's shared primary trunked radio system.

Prior to FY 2004, expenditures were largely confined to the replacement of older portable and mobile radios. In FY 2004, however, City funds were combined with federal Byrne grant funds and the $7.3 million radio system infrastructure upgrade process was

initiated. Vendor selection for the upgrade was completed in FY 2005, with upgrade installation work to be completed in FY 2006. New system user activation was completed in December 2005. The majority of this project has been completed.

Operating Budget Impact:

The annual cost of maintenance for the replaced system is estimated at $498,000.

Project Benefit:

The replacement radio system will enhance productivity and provide better quality service by:

- Providing better system coverage within 2 miles of City limits;
- reducing the number of busy signals officers receive when attempting to communicate with the emergency communications center or respective base stations;
- improving the clarity of transmissions through the use of modern technology; and
- facilitating mutual aid operations with Airport Authority Police and Fire, and Arlington and Fairfax counties, who are also implementing technologically compatible radio systems.

Change In Project From Prior Fiscal Years:

An amount of $50,000 is included in FY 2007 - FY 2012 for replacing radios that break unexpectedly through the year.

Alexandria Justice Information System (AJIS) Enhancements
(015-015-36) Priority: Very Desirable

Relationship to City's Strategic Plan
"Ensure City services are responsive to changing needs."

As envisioned, modifications continue to be made to the Alexandria Justice Information System (AJIS). The Sheriff's Office has completed testing a finance component that tracks inmate accounts and commissary purchases. AJIS interfaces are currently being created for a classification application and LiveScan application. These interfaces will enhance the Sheriff's Office's ability to quickly classify and identify new inmates. Most recently, the Virginia Supreme Court changed case types requiring changes to AJIS functions and forms. To meet a Supreme Court of Virginia mandate, plans are being made for subscriber-access through the Internet to Clerk of the Circuit

Court land records. Once Internet access is implemented, the Clerk's office will have access to state monies for additional improvements to AJIS. Please see the 'Public Access to Land Records' project on page 43 for more information.

AJIS will continue to require modifications based on changes to federal, state and local statutory requirements. This funding is also needed for the upgrades required by the variety of software used by AJIS. This is necessary to ensure that AJIS continues to perform at the highest capacity.

Project Benefit:

On-going enhancements to the Alexandria Justice Information System will protect the City's investment by ensuring that the system will continue to grow to meet changing statutory and technological requirements.

Change In Project From Prior Fiscal Years:

An additional $61,000 has been added to the AJIS project in FY 2008 to fund the Sheriff's request for wireless access to the AJIS system for legal process service workers.

Police/Fire Computer Aided Dispatch (CAD)/Records Management System (RMS) Replacement
(015-015-4-3) Priority: Essential

Relationship to City's Strategic Plan
"Residents have convenient access to City government and services."

This project provides for the phased replacement of the hardware for the City's mission-critical Police and Fire computer aided dispatch and records management systems. The replacements are:

- The CAD PC-based equipment will require replacement in FY 2008, FY 2010, and FY 2012. Specifically, there are 19 workstations (12 Police, 7 Fire) with PC equipment. This equipment should be replaced at least every two years as it is in operation 24 hours a day, seven days a week, is rarely turned off and serves critical public safety needs.

- The CAD gateway computers, which support the essential functions of the CAD (2 Police, 2 Fire) and mapping server, should be replaced every 3 years. These are a critical component of the CAD system.

- The replacement of the two IBM AS/400 mini-computers should occur every three years due to normal life cycle expectancy under a 24 x 7 operation.

- Monitors are replaced every 3 years.

Automatic Vehicle Locator (AVL) devices have been tested in anticipation of implementation. AVL will provide the Police and Fire Departments with the ability to constantly monitor the location of vehicles to improve the management of field resources and to increase safety. By the end of FY 2006, we anticipate equipping one-half of our vehicle fleet (approximately 100 units) with GPS receivers and associated software to transmit information to headquarters and to display the vehicle on a map.

Planned initiatives for FY 2007 include:

- The purchase of PowerPhone software. This program provides total response computer aided call handling. It is installed as a front end to the CAD system and provides a single set of protocols that ask questions for each call type. It rates answers and suggests a priority. It includes pre-arrival advice for Fire calls and also recommends resources to send to each incident. It has a built in quality improvement system with objective performance measurement tools. All the data this system collects is automatically entered into the CAD system once the call taker hits the enter button.

- The purchase of LG Address software. This software provides integrated administration of address records for both CAD and mapping through an interactive map interface.

The Records Management Systems, housed on the AS/400, provide the base for almost all data collected by Police and Fire staff.

Change in Project From Prior Fiscal Years:

- The original budget of $775,000 in FY 2007 has been reduced to $425,000 to reflect a more recent assessment of project needs.

- Funding in the amount of $275,000 in FY 2008 to provide $100,000 as the estimated City's share of a potential regional CAD-to-CAD interface project.

- An increase of $9,100 in FY 2009 to cover AS/400 maintenance.

- A decrease of $405,000 in FY 2010 due to a change in IBM pricing.

- $127,500 added in FY 2012 for replacement CAD equipment.

- The timing of systems (CAD/RMS/E-911) replacement will need to be coordinated with the schedule for constructing a new police headquarters facility.

Interoperability Strategies for Public Safety (CommTech Project)
(015-015-34) Priority: Essential

Relationship to City's Strategic Plan
"Residents have a high level of satisfaction with City services."

The Alexandria Police Department has been in partnership with the National Institute of Justice's CommTech Program (formerly AGILE - Advanced Generation of Interoperability for Law Enforcement) as an operational test bed since March 1999. The project's focus is to test public safety interoperability solutions (hardware/software) and improve issues regarding connectivity among data and radio systems of neighboring public safety agencies with overlapping or adjacent jurisdictions.

The Alexandria Police Department has continued to serve as the public safety communications interoperability host for most of the public safety agencies in the National Capital Region. The Alexandria Police Department has achieved interoperability with up to 22 different public safety agencies, including the Montgomery County, Maryland Police Department, Prince William County Police Department, Pentagon Force Protection Agency and the United States Department of State.

This project continues to serve as a national model for interoperability communications technology needs. Documentation regarding the technical evaluation, initial lessons learned and the Gateway Subsystem installation documentation can be found on the CommTech web site at *www.ojp.usdoj.gov/nij/topics/commtech*. In the future, the CommTech Program will focus on standards for interoperability communications nationwide through affiliation with groups such as the International Association of Chiefs of Police - Communications and Technology Committee, which has international implications; the Department of Homeland Security SAFECOM Program and locally, the Metropolitan Washington Council of Governments (COG). Data sharing among law enforcement agencies and voice over internet protocol (VOIP) are two key targets of development for this project, as well as the standardization that will be expected in these areas.

Project Benefit:

The project has focused its efforts towards outreach and technical support for public safety agencies across the United States following the incidents of September 11. Locally, the program focuses on any interoperability issues impacting the region. Locally these agencies include the Arlington County Emergency Communications Center; the District of Columbia Public Safety Communications Center and the Prince William County Police Department. In addition, the CommTech Program is often contacted to lead communications efforts for large interoperability events such as presidential inaugurations, large special events in the District of Columbia such as the dedication of national monuments and social events.

In addition to working on audio interoperability solutions, the CommTech Program is also working on data interoperability projects, such as CapWIN and evolving data sharing projects emerging in the National Capital Region.

Change in Project From Prior Fiscal Years:

There is no change to this project from the prior fiscal year. The CommTech Program provides all funding for training and travel costs. There are no City costs associated with this project.

Emergency Operations Center Enhancements
(015-015-33) Priority: Essential

Relationship to City's Strategic Plan
"People feel safe and secure through the community."

This project provides for a number of information technology enhancements to the City's Emergency Operations Center (EOC). These enhancements are required to create and maintain a modern, reliable EOC. In FY 2005, the following recommended improvements were made to the EOC:

- The City purchased and implemented a product called WebEOC, which is an application that delivers a wide range of features for the planning and management of real-time incident / event information. It is designed specific to emergency operations center functions constructed with a control panel (the "remote control") that, depending on configuration, can launch status boards, maps, and links to other applications or sites, etc.

- The City implemented Roam Secure, which builds, deploys and manages emergency communication systems for local, state and federal government agencies and businesses. Roam Secure facilitates communications during emergencies and routine incidents through a combination of cell phones, pagers, Blackberry, PDAs, e-mail and desktop alerts. Cities that use the Roam Secure service can contact enrolled citizens and businesses in seconds with specific, targeted information during emergencies. To enroll your cell phone, pager, PDA or e-mail in the Roam Secure alert system, go to *alexandriava.gov*.

Operating Budget Impacts:

The annual depreciation for the 30 EOC laptop computers (one for each position in the EOC, plus spares) is estimated at $20,000 annually over their three-year life. The units were acquired with a three year warranty.

Project Benefit:

This project will help ensure that the EOC can be established and properly functioning in a minimal amount of time and with minimal opportunity for implementation error.

Change In Project From Prior Fiscal Years:

There is no change to this project from the prior fiscal year.

E-911 Planning and Replacement
(015-015-38) Priority: Essential

Relationship to City's Strategic Plan
"Residents have convenient access to City government and services."

The 911 emergency telephone system is an integral part of the communication and response network for the City's emergency services. On average, the Police and Fire communications center receives over 950 emergency and non-emergency calls per day.

While the current system (which was last updated in FY 1996) has been reliable and sound, replacement is required as the current servicing contractor has indicated that providing support for this system is becoming increasingly difficult because the technology currently in use is no longer sold and installed and therefore replacement parts are increasingly hard to come by.

In addition, rapid advances have occurred in the area of wireless 911 that must be accommodated. Federally mandated technology improvements are being deployed by the cellular industry to allow pinpointing of the exact location of calls to 911 that come from cellular telephones. The City's 911 system must be updated to take full advantage of this technological improvement. Funding to support an assessment of the current system may be partially provided through the State of Virginia's Wireless Services Fund, which collects an assessment from wireless telephone users to assist in supporting needed technological improvements. However, it is estimated that funds in addition to those received from the Wireless Services Fund will be required to adequately analyze and plan for the 911 system replacement. A requirements gathering exercise and RFP technical scope have been completed for the replacement system. It is anticipated that this City will issue an RFP for the new system in the early part of 2006.

Operating Budget Impacts:

Annual operating costs, depending on the type of system acquired, are estimated at $50,000 to $75,000 annually.

Change in Project from Prior Fiscal Year:

An amount of $1,500,000 is included in FY 2007 to replace hardware and software for the City's Emergency-911 system.

Emergency Medical Services Records Management System
(015-015-39) Priority: Essential

Relationship to City's Strategic Plan
"Ensure City services are responsive to changing needs."

The City uses a commercial system to gather data regarding emergency medical services responses to medical emergencies. The data in this system is used to provide a hard copy report to hospitals on the patient status when a patient is left at a hospital. The data is transferred to the Fire/EMS Records Management System and then a data transfer is made to the City's ambulance billing agency for the calculation of the appropriate ambulance billing charges.

The vendor for the current system has indicated that they will no longer be supporting this product within 1 year. In FY 2006, the replacement system is scheduled for implementation using funds programmed in FY2005.

Operating Budget Impacts:

The ongoing operating budget impact is anticipated to be $34,000 per year.

Project Benefit:

The new system provides the EMS staff the capability to gather accurate patient data which results in better information conveyed to hospitals on patient status. In addition, the information is used for ambulance billing charges, enabling more accurate and timely billing and follow up.

Change in Project from Prior Fiscal Years:

There are no changes in this project from the prior fiscal year.

Sheriff Accreditation Training System
(015-015-51) Priority: Desirable

Relationship to City's Strategic Plan
Always looking to the future and for ways to get better.

The Department of Criminal Justice Services requires all deputy sheriffs to receive 40 hours of mandatory training in law enforcement, corrections and/or court security every two years. The American Correctional Association and Commission on Accreditation for Law Enforcement Agencies requires all deputy sheriffs and select civilian staff to receive 40 hours of training each year. Currently, the City's yearly staff training is completed at various criminal justice academies in the Northern Virginia area. Deputy sheriffs are required to leave the City of Alexandria and their assigned Office of Sheriff locations (jail, courthouse) to complete this mandatory training. Overtime is required to ensure minimum staffing at the various Office of Sheriff locations while staff participate in off-site required training. This project requests funding for an in-house computer based training program that will allow deputy sheriffs and civilian staff to participate in training during the normal duty hours.

Project Benefit:

The computer based training will be interactive and document the staff person participating, dates, time start and time end, and testing process. Allowing deputy sheriffs to take computer-based training classes to meet annual training requirements will eliminate the need to have the deputies off-site and away from their duty stations, and thus eliminate the current requirement to back-fill to ensure minimum staffing requirements as well as reduce overtime costs. Appropriate videos, training aids, web-based programs (ACA, LETN, AJA, IACP, NSA) would be utilized to provide as much training for Office of Sheriff staff to meet the requirements of accreditation and DCJS, if approved.

Operating Budget Impact:

Annual maintenance costs for this project are expected to be about $11,250.

Change in Project from Prior Fiscal Year:

The estimated cost of this proposed project is $75,000, currently included in FY 2008 of the IT/CIP.

Sheriff Network Connectivity Conversion
(015-015-53) Priority: Desirable

Relationship to City's Strategic Plan
"Deliver services in the most cost-effective manner."

Currently, PC workstations within the Alexandria Detention Center are connected to the City's I-Net via fiber optic cable (fiber). With constant and increasing changes in network technologies and capabilities, the Office of Sheriff finds itself at a financial disadvantage keeping up with such technological advances. The fiber optic wiring costs the Office more because we have to purchase expensive fiber-specific network hardware in addition to the City's provided network solutions. For example, when adding necessary peripherals to the network, such as printers and switches, it costs the Office additional budgetary resources because fiber optic transceivers have to be purchased in order convert the fiber signal to a digital signal. Transceivers cost an average of $300 per unit. A network fiber card must be purchased for every workstation at an approximate cost of $150 per card.

This project proposes replacing the current fiber optic cabling with CAT-5 network cabling. Standard CAT-5 cabling decreases the cost of connecting to the network by an average cost of $225 per drop.

Project Benefit:

Using standard CAT-5 network cabling will allow the Office of the Sheriff to use the available networking capabilities already installed on purchased PC workstations and other network peripherals without the added cost of fiber to digital transceivers.

Operating Budget Impact:

This project should reduce the operating budget impact of maintaining fiber optic cable in the Alexandria Detention Center.

Change in Project from Prior Fiscal Year:

Funds in the amount of $48,000 are included in FY 2008 for this project.

RECREATION SYSTEMS

	Prior Year Unallocated	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Totals
Recreation Systems	75,000	0	0	0	0	0	0	75,000
Recreation Computer Laboratories	0	0	0	0	0	0	0	0
Totals	**75,000**	**0**	**0**	**0**	**0**	**0**	**0**	**75,000**

Recreation Systems
(015-015-5-2) Priority: Desirable

Relationship to City's Strategic Plan
"Residents have convenient access to City government and services."

This project provides for development and installation of automated systems to support the management of recreational services, including park maintenance. The Department of Recreation, Parks & Cultural Activities began addressing administrative and resident services issues through better application of technology in FY 2001. Several software application modules, including facility and activity reservations, point-of-sale management, and financial tracking have been in place at Chinquapin Park Recreation Center, which generates over $1 million in revenue annually. Park and facility maintenance automation modules were installed during FY 2001-2002 to improve time management and maintenance tracking for over 800 park acres. All full-time recreational facilities were connected to the City's I-Net in FY 2003. Currently, all Centers have installed the Pass Management System and are connected with the Department's main administrative office for real-time tracking of on-site customers. The City is now testing the telephone registration module of the system for implementation. The module will allow residents to register and pay for recreational activities electronically using a telephone. A decision on the use of the module will be made by Spring 2006. The implementation plan for the system, including the integrated recreation software package and associated hardware upgrades, is expected to continue through the fiscal year. The Park Maintenance modules have been installed and staff have finalized the implementation and usage of the modules. The maintenance portion of the system is now active.

Operating Budget Impact:

The combined annual maintenance fee on these systems is $8,750. The annual maintenance fee includes telephone support during business hours and upgrades to the software at no additional charge.

Project Benefit:

This project provides an improved quality of service through the identification of the usage of recreation centers and the types of services that are best suited to the residents who make use of those centers. The planned use of this system will provide the capability for residents to register and pay for recreation classes and activities electronically, either on the telephone or over the Internet. This integrated system improves work productivity by providing better information gathering and coordination of work functions within the department.

Change in Project From Prior Fiscal Years:

There is no change in this project from the prior fiscal year.

OTHER SYSTEMS

	Prior Year Unallocated	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Totals
Permit Processing	520,600	60,000	120,000	TBD	TBD	TBD	TBD	700,600
MHMRSA HIPAA Data Security Compliance	25,000	25,000	25,000	25,000	25,000	25,000	25,000	175,000
Intranet	105,000	0	10,000	10,000	10,000	10,000	10,000	155,000
TES Infrastructure Management and Maintenance System	0	0	0	0	0	0	0	0
Help Desk System	30,000	0	0	0	0	0	0	30,000
IT Project Management	0	50,000	0	0	0	0	0	50,000
DHS Payment System Replacement	0	40,000	280,000	0	0	0	0	320,000
Totals	**680,600**	**175,000**	**435,000**	**35,000**	**35,000**	**35,000**	**35,000**	**1,430,600**

Permit Processing
(015-015-5-1) Priority: Essential

Relationship to City's Strategic Plan
"Residents have convenient access to City government and services."

This project provides for the continued development of the City's various building-related permit systems, the most important of which is Permit*Plan, which supports the administration of the City's land development process. The permit process includes the administration of the fire prevention permits, Volume II complaint tracking (for complaints regarding existing structures), civil penalties ticket tracking, fire inspections performed by the Fire Department, residential rental program inspections, tenant/landlord complaints, Planning and Zoning complaints, T&ES permits, occupancy certificates and other construction related permits, such as building, mechanical, electrical and plumbing.

Members of the City's Permitting Committee work with staff from the various departments to identify on-going system needs to address current and planned business practices.

Internet access to the City's permitting system is now available on the City's web site. Citizens and construction contractors have requested an increase in the services of the site to include the ability to file permit applications, pay for permits and schedule inspections from the City's web site. At present site visitors may check the status of applied for permits and obtain inspection status by knowing project number, address or by permit number.

The Permitting project includes $120,000 in FY 2008, for continued costs relating to the "Code Mobility" project, allowing access to the Permitting application to inspectors in the field. This project has recently been initiated. Full implementation is anticipated by fall 2006.

Operating Budget Impact:

Annual operating budget costs for current system maintenance are approximately $12,000 per year.

Project Benefit:

This project enhances productivity for City staff in Code Enforcement, Planning and Zoning, Transportation and Environmental Services, Health, Archaeology and Recreation by reducing the time to transmit permit requests among the departments that must review them. The system enables better customer service by enabling staff to answer inquiries about the status of permit applications quickly and accurately. In addition, the Integrated Voice Response (IVR) system allows contractors, residents and customers to use telephone automation to schedule inspections, get inspection results, have applications faxed and get general information on when permits are required, which frees up staff to do other tasks.

Change in Project From Prior Fiscal Years:

Funding in the amount of $60,000 is included in FY 2007 to support on-going initiatives. As funding needs are less clear after FY 2008, the remaining project years show 'TBD' or "to be determined" for FY 2009 - 2012.

MHMRSA HIPAA Data Security
(015-015-31) Priority: Essential

Relationship to City's Strategic Plan
"Ensure City services are responsive to changing needs."

The Health Insurance Portability Accountability Act of 1996 (HIPAA) was enacted by Congress and signed into law to regulate and standardize information exchanges and establish standards for the privacy and security of individually identifiable health insurance information. HIPAA will impact all functions, processes and systems that store, handle, or generate health information.

The standards for Privacy of Individually Identifiable Heath Information (the Privacy Rule) took effect on April 14, 2001. The Privacy Rule creates national standards to protect individuals' personal health information and give patients increased access to their medical records.

The Health Insurance Reform: Security Standards, Final Rule were adopted on February 20, 2003. This final rule adopts standards for the security of electronic protected health information to be implemented by health plans, health care clearinghouses, and certain care providers.

The act is complex and the regulations by design leave the procedural implementation decisions open to interpretation. The scope of the project includes a self-assessment of current business functions and their impact on HIPAA regulations and compliance issues. MH/MR/SA staff are familiar with the Security Rules and the department has a voting member on the Virginia Community Services Boards' (VACSB) HIPAA Security Subcommittee. This subcommittee developed a Risk Analysis Tool. MH/MR/SA is using this tool to assess risk and implement appropriate measurers to mitigate these risks. Some key accomplishments in FY 2006 includes:

- Implemented a Hot Backup Site at the West End Club House.
- Acquisition and deployment of second Citrix server to provide redundancy and load-sharing for our remote sites.
- Acquisition and testing of a backup MS SQL database server.
- Acquisition of disk imaging hardware to improve the consistency of departmental computers and assist in rapid recovery of distressed systems.

Project Benefit:

This project provides funding to ensure City compliance with HIPAA regulations.

Change In Project From Prior Fiscal Years:

The addition of $25,000 in each fiscal years 2007 through 2012 for additional HIPAA related security improvements implementation such as:

- Improving the department's ability to remotely manage our systems.
- Implement access to our systems for staff who visit consumers in their homes.

Intranet
(015-015-28) Priority: Very Desirable

Relationship to City's Strategic Plan
"Always looking to the future and for ways to get better."

An intranet is the application of Internet technologies over an organization's internal network, allowing City employees to share data and more easily access services. The information that is provided through an intranet is available only to an organization's employees and allows for the display of documents, submission of

information using electronic forms and enhanced employee collaboration. An intranet resides on an organization's existing network and is usually protected from the outside world by a firewall. The City of Alexandria's intranet is called CityNet.

This project enables staff to continue developing the City's intranet infrastructure, content, and applications.

Project Benefit:

An intranet allows the City government to:

- Distribute information quickly to all City government employees who have network connections or other authorized access.
- Take advantage of browser/client technology to reduce the cost and effort of making client/server applications available to appropriate City staff. (See the Application Deployment Management project for additional information, page 91).
- Allow departments to electronically distribute information solely to their own staff without having to make this information available to all City staff.

Change In Project From Prior Years:

This project is able to forego funding in FY 2007 due to an availability of prior year resources.

TES Infrastructure Management and Maintenance System
(015-015-29) Priority: Essential

Relationship to City's Strategic Plan
"There is a strong partnership between City government and the community."

Transportation and Environmental Services (T&ES) Operations (Maintenance and Solid Waste Divisions) uses semi-automated processes for work input and control of the City's municipal physical public works assets. These systems log work to be accomplished and completed work, but no entry is made into a history file. If management wants to see the amount and type of work that has taken place over a period of time on a specific asset element (for example, the 8-inch sanitary sewer main connecting East Bellefonte Ave with the Commonwealth Connector), a manual records search has to be done.

The system to be implemented would have the capability to assist in the infrastructure maintenance activities of other divisions in T&ES. A preferred system would include the following elements, and will be interfaced with the City's GIS system for mapping, and the City's accounting and budgetary systems for cost data.

The system will provide information on work management to include labor, material and equipment usage and costs for:

- Labor records
- Material inventory
- Work orders and projects
- Equipment used on projects
- Labor assigned to projects
- Work requests

Once populated with the correct information, it is envisioned that the system will provide information on asset management to include inventory quantities, condition and value of the following:

- Traffic signs and signals
- Storm and sanitary sewers
- Fire Hydrants
- Pavement
- Paving
- Curbs and Gutters
- Sidewalks
- Markings
- Street lights
- Solid waste receptacles
- Recycling drop-off centers

Operating Budget Impact:

The annual operating budget impact is estimated at approximately 15 percent of the current year software cost, or $11,250.

Project Benefit:

This project enhances productivity by eliminating unnecessary manual data entry, accumulating more accurate maintenance data and creating a database of infrastructure items and activities.

The residents and the City benefit because of the enhanced ability to respond to resident complaints about City infrastructure in a more timely and accurate fashion.

Change In Project From Prior Fiscal Years:

There are no changes in this project from the prior fiscal year.

Help Desk System
(015-015-32) Priority: Essential

Relationship to City's Strategic Plan
"Deliver services in the most cost-effective manner."

In FY 2005, ITS implemented a web-based Help Desk system, which integrates with the Lotus Notes (LN) Name and Address Book (NAB). The web-based application allows ITS staff and other technical staff to access the application from any network connected workstation and eliminates the need for workstation client upgrades.

Interfacing with LN has allowed for automatic responses to users when service calls have been assigned for service or have been closed.

The system includes a knowledge base module, asset inventory module, personnel module, and help desk ticketing/tracking module. In an attempt to leverage IT knowledge bases across the City, the system is also used by the ITS Help Desk, AJIS Help Desk, Recreation Help Desk, and Mental Health Help Desk. The Fire and Sheriff departments are also evaluating the system for tracking of departmental service calls.

Project Benefit:

The expanded accessibility of this system via the web-browser will improve the efficiency in which Help Desk staff are deployed. Once dispatched to an office on a call, Help Desk staff can check the system to see if there are other calls to be responded to near their current location prior to returning to the office.

Change In Project From Prior Fiscal Year:

There are no changes in this project from the prior fiscal year.

Information Technology Project Management
(015-015-41) Priority: Very Desirable

Relationship to City's Strategic Plan
"Deliver services in the most cost-effective manner."

The City has worked hard to communicate the necessity for excellent project management with respect to the IT Plan projects that are included in this document. In FY 2003, ITS created the Information Technology Project Office, a City-wide resource for project management assistance. In FY 2003 and FY 2004, the Project Office sponsored four 10-week training sessions of IT Project Management Education, graduating over 65 employees from departments throughout the City. The focus of the training is to increase attendees' awareness of project management tools and techniques and the unique demands presented by information technology projects. The Project Office also released a series of project management templates (available on CityNet and on CD by request) to help City staff plan, initiate, execute, control and close their information technology projects.

This project provides funding for contract project management staff where no obvious departmental resource exists to fulfill this role. In addition, monies in this project will be used to purchase additional software licenses for the City's enterprise project management software application for departmental staff who desire to use this web-based application.

Project Benefit:

This project provides funding to expand the City's use of professional project management software, which will improve communications and understanding of project progress.

Operating Budget Impact:

The City currently pays approximately $5,000 annually for maintenance for the enterprise project management software application.

Change in Project from Prior Fiscal Years:

There is no change in this project from the prior fiscal year.

DHS Payment System Replacement
(015-015-42) Priority: Desirable

Relationship to City's Strategic Plan
"Ensure City services are responsive to changing needs."

The Human Services department is requesting funding to upgrade to a web-based version of its payment and case management system. The current system, Harmony, is used by Human Services, MHMRSA, Alexandria City Health Department, Alexandria City Schools and Court Services personnel for service-related cases.

The current version of Harmony used by the City has not been sold for more than 3 years. The system vendor has notified DHS that continued support would only be performed with payment of an hourly programming fee.

Project Benefit:

The new desired version of the software will provide a more flexible, cost-effective and portable software solution for staff. The solution should include improvements in overall access, security, reporting and screen design, and will also allow access by staff not connected to the City's network.

Change in Project From Prior Fiscal Years:

This is a new project. Funds in the amount of $40,000 are included in FY 2007 for as-needed system maintenance. The full system replacement cost of $280,000 is included in FY 2008.

LOCAL AREA NETWORK (LAN) DEVELOPMENT

	Prior Year Unallocated	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Totals
LAN Backbone Capacity	100,000	0	50,000	50,000	50,000	50,000	50,000	350,000
Individual Building LAN Development	50,000	50,000	25,000	25,000	25,000	25,000	25,000	225,000
Upgrade Network Operating System	75,000	50,000	25,000	15,000	15,000	15,000	15,000	210,000
Upgrade Work Station Operating Systems	5,000	105,000	50,000	50,000	50,000	50,000	50,000	360,000
Network Infrastructure Hardware Upgrades/ Replacement	568,100	0	578,125	482,125	492,125	455,000	0	2,575,475
Storage Area Network	0	0	250,000	0	0	0	0	250,000
Totals	**798,100**	**205,000**	**978,125**	**622,125**	**632,125**	**595,000**	**140,000**	**3,970,475**

Increase the Capacity of the LAN Backbone
(015-014-1-1) Priority: Essential

Relationship to City's Strategic Plan
"Always looking to the future and for ways to get better."

A LAN backbone is the set of electronic components (electronic ethernet or ATM switches, routers, cables, concentrators and hubs) and software that connect multiple LAN servers within a single building to one another. In City Hall the LAN backbone also connects to the City's Wide Area Network (WAN), and includes high-speed WAN services the City's Institutional Network (I-Net), and virtual private network (VPN) services.

A backbone's capacity is a key factor constraining data transmission speed. At present the backbone for a typical City building transmits data using ethernet communication protocols with 100 megabits of data per second. With the continued deployment of document storage and retrieval services, as well as the increased data traffic that is being introduced by the development of the Geographic Information System, the Alexandria Justice Information System, the Police and Fire Computer Aided Dispatch Systems and the other Public Safety systems and the large deployment of Lotus Notes e-mail, the backbone capacity is needed in many City facilities.

In FY 2002, the City's first gigabit per second (gbps) backbone was placed in operation in City Hall. Also in FY 2002 staff began replacing the remaining 10 megabit shared ethernet hubs and concentrators with 100 megabit ethernet switches. The upgrade to gigabit ethernet throughout the City was completed in FY 2005.

Project Benefit:

This project continues to fund improvements to staff productivity by increasing the speed with which data are delivered to users of the City's computer networks. By providing equipment upgrades to the network backbones, it is possible to provide better quality service to computer users by significantly reducing the time spent waiting for network responses for data. The upgrades also enable a much wider exchange of graphical images and other items such as maps and video that demand high-bandwidth.

Change In Project From Prior Fiscal Years:

Funding for this project in the amount of $50,000 in FY 2007 has been reduced due to the availability of prior year funds. Funding for this project has been extended to FY 2012, in the amount of $50,000.

Individual Building LAN Development
(015-014-1-2) Priority: Very Desirable

Relationship to City's Strategic Plan
"Quality development… consistent with Alexandria's vision."

The project includes installation of, or upgrades to, local area networks (LANs) located in many City government buildings. Monies will fund the acquisition of the LAN infrastructure components (ethernet switches, punch-down blocks, cabling, etc.) needed for relocation of staff as they move to new office space (Information Technology Services staff, Transportation and Environmental Services staff, etc.). These new components will be connected to the I-Net switches at each site, and additional LAN infrastructure equipment will be installed where necessary. These upgrades or new connections will provide at least 1 gbps switched ethernet connections. As the I-Net is deployed further and the specific needs of each building are clearly identified, costs will be updated accordingly.

Project Benefit:

LANs can provide better quality service for staff by improving access to data and by making new functions available that can improve the quality of customer service.

Change In Project From Prior Fiscal Years:

Funds in the amount of $50,000 are included in this project in FY 2007. Funding for this project has been extended to FY 2012 in the amount of $25,000.

Upgrade Network Operating System
(015-014-1-3) Priority: Essential

Relationship to City's Strategic Plan
"Deliver services in the most cost-effective manner."

The City has standardized on Microsoft Windows 2000 Advanced Server as the operating system for servers. This version of server operating system provides the ability to synchronize the directory and user entries on all WAN connected servers, simplifying the administration of these servers.

The City maintains scripting software (which is used for remote desktop administration) to manage consistent Windows client configurations and simplify network management tasks and reduce the time necessary to perform those tasks.

This software allows for centralization of drive mappings, search paths, time synchronization, desktop shortcuts, startup applications and the display of legal notices and pop-up messages.

This project is implemented in conjunction with the Network Infrastructure Hardware Upgrades/Replacement project, see page 84.

Project Benefit:

This project enhances productivity by enabling ITS staff to reduce time spent managing and monitoring the City's network services and allows City network engineers to concentrate on one operating system instead of managing multiple systems.

Change In Project From Prior Fiscal Years:

There is no change in this project from the prior fiscal year.

Upgrade Workstation Operating Systems
(015-014-1-4) Priority: Essential

Relationship to City's Strategic Plan
"Deliver services in the most cost-effective manner."

This project provides funds to upgrade the operating system on City computer workstations with an appropriate version of Windows. This project also provides for additional workstation memory and larger capacity hard drives as necessary. These upgrades are required to support the next generation of City e-mail messaging, financial, public safety, GIS, human resource, maintenance management and other applications.

The City replaces desktops and workstations on a five year cycle and as these are replaced the operating system is typically upgraded. However, this funding is for those computer workstations that are not in need of physical replacement, but still require the upgrade of the operating system to allow a new or upgraded application to run. This project also provides for the labor costs of installing the new operating systems.

The current desktop operating system standard is Windows 2000. However, Windows XP operating system has been implemented in limited quantities throughout the City including the City's Emergency Operations Center and other mobile laptops requiring wireless access.

Microsoft maintains a 10-year minimum support cycle for their product line. On June 30, 2005, the Windows 2000 product family transitioned from mainstream support to its extended support phase. Microsoft will continue extended support for at least 5 years through June 2010. In addition, Microsoft's next generation operating system, Windows VISTA is expected to hit the mainstream market in early 2007.

Given the current Microsoft product life cycle time line and continued growth of Windows XP exceptions in the City, ITS and external Help Desk are beginning to test Windows XP on select user workstations. This is a proactive measure meant to identify software incompatibility of legacy systems prior to the introduction of Windows VISTA.

Project Benefit:

This project enhances productivity for City computer users who require functions that are available in new workstation operating system versions that enable them to run new applications. Users whose job requires the use of many different software applications, or applications that require significant computer resources, are better served by Windows 2000 or Windows XP.

Change In Project From Prior Fiscal Years:

Funding for this project has been extended through FY 2012 in the amount of $50,000.

Network Infrastructure Hardware Upgrades/Replacement
(015-014-1-5) Priority: Essential

Relationship to City's Strategic Plan
"Ensure City services are responsive to changing needs."

This project provides for the phased replacement of the hardware and software required to operate the City's computer network services in a safe and reliable manner. This project also provides funds for consulting services needed to properly plan and execute the scheduled network infrastructure upgrades.

The table in Appendix A on page 101, identifies the units that are scheduled to be replaced each year and, where consolidation of file servers is planned, when and how that consolidation is to occur.

Operating Budget Impact:

New and replacement servers are acquired with four year on-site maintenance warranty service, allowing annual maintenance costs for network equipment to be held to a minimum.

Project Benefit:

This request funds the purchase of hardware and software for the phased replacement of servers in accordance with the Appendix C schedule and the purchase of new servers needed to continue to provide the system reliability (system availability) that is expected. It also includes the administration software and desktop licenses required to manage the network from these replaced servers.

By pairing (clustering) servers and introducing shared disk data storage devices, the City can improve availability of network services to industry standards (in excess of 99 percent up-time). With these new technologies, multiple servers store data on a set of highly-redundant, interchangeable disk storage devices which reduces downtime, eases maintenance and supports easier upgrades. The City will continue to consolidate by using large enterprise class servers whenever possible and retiring the older, smaller servers by collapsing these into clusters of two, with each set of two sharing a set of LAN data storage devices.

Change In Project From Prior Fiscal Years:

This project is able to forego funding in FY 2007 due to the availability of prior year unexpended funds.

Storage Area Network
(015-014-14) Priority: Very Desirable

Relationship to City's Strategic Plan
"Always looking to the future and for ways to get better."

A Storage Area Network (SAN) is a high-speed network, similar to LANs, that connects disk subsystems directly to servers or clients. SANs help to relieve network congestion and bypass distance limitations imposed by traditional Small Computer Storage Interface (SCSI) connections. They provide more rapid access to data and provide improved resiliency for backup and archiving of data.

With constant growth in the amount of data requiring storage, the demand for additional network storage capabilities continues to rise. A SAN is superior to the lower-cost storage alternative, Networked-Attached Storage (NAS), for several important reasons. NAS attaches to the network as a network device, so the NAS traffic competes with other LAN traffic. NAS also cannot support multiple servers easily. A SAN has its own network, so traffic is independent of the existing LAN. A SAN supports multiple servers with speed and reliability.

During FY 2005, acquisition of the City's SAN hardware and consulting services was completed, and implementation began.

This project also provides funding for the replacement of the City's tape library, commonly known as the ADIC. The ADIC is the cornerstone of our backup solution for the City network, and is nearing the end of its useful life. The replacement will utilize newer technologies and allow for greater storage density per square foot of floor space. In addition the unit will provide for slot and drive expansion within its rack, allowing less expensive options for expanding the network online tape archive size and backup throughput.

Project Benefit:

SANs provide more secure storage of data and help protect against data loss through a variety of technologies such as disk units that can be exchanged without having to turn the SAN off (hot-swappable) and the ability to automatically switch to another server in the event of a server failure. The City continues to add capacity to the City's SAN to accommodate additional servers as necessary. An amount of $250,000 is included in FY 2008 for this project.

Change In Project From Prior Fiscal Year:

There are no changes in this project from the prior fiscal year.

WIDE AREA NETWORK (WAN) DEVELOPMENT

	Prior Year Unallocated	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Totals
Institutional Network Development								
Expenditure Totals	0	665,000	665,000	665,000	665,000	665,000	665,000	3,990,000
Less: Revenue Totals	0	-665,000	-665,000	-665,000	-665,000	-665,000	-665,000	-3,990,000
Net City Cost	0	0	0	0	0	0	0	0
Telephony Integration	50,000	246,000	464,530	199,274	187,231	171,640	208,545	1,527,220
Security	50,000	25,000	40,000	40,000	0	0	0	155,000
Application Deployment Management	108,000	25,000	25,000	25,000	25,000	25,000	25,000	258,000
Database Infrastructure	153,000	40,000	65,000	65,000	65,000	40,000	0	428,000
Totals	**361,000**	**336,000**	**594,530**	**329,274**	**277,231**	**236,640**	**233,545**	**2,368,220**

Institutional Network (I-Net) Development

(015-014-2-1) Priority: Essential

Relationship to City's Strategic Plan
"Achieve and maintain a high level of satisfaction with City services."

Funding for this project is provided by Comcast Cable Communications capital grant monies required to be provided under the City's cable franchise agreement with Comcast. This sustains the continued activation of the fiber optic network called the City's Institutional Network (I-Net). In FY 2005 and early FY 2006, more facilities were added and some of the data communication links between major City, School, and Library facilities were updated to provide improved speed and service. These are shown on the following page:

Facility or Site	Remarks
New Health Dept.	Completed in July 2004.
Visitor Center Public Safety	Completed in July 2004.
Interim Public Safety Facility	Completed in August 2004.
Gadsby's Tavern Museum	Completed in August 2004.
Durant Center	Completed in August 2004.
Sheriff's Dept.	Move in the Public Safety complex from the 2nd floor to the 3rd floor. Completed October 2004.
Inspectors Trailer at TC Williams Construction Site	Completed July 2005.
Inter-County Connector	Fiber installed to connect Arlington I-Net to join the City of Alexandria I-Net fiber. Completed Spring 2005.
Code Enforcement/PTO	Move to American Trucking Association building. Completed August 2005.
T&ES Engineering and Design	Move to the old Health Dept. facility at 720 N. St. Asaph St. Completed August 2005.
Ford Nature Center	Completed in November 2005.
Housing Dept.	Move from City Hall to 421 King St. Completed November 2005.

Additional sites to be addressed in FY 2006/2007 are shown below:

Facility or Site	Remarks
ITS Dept.	Move from City Hall to 421 King St.
T&ES	Move from City Hall to 405 Cameron St.
ITS Training Center	Mover from 405 Cameron St. to 123 Pitt St.

Operating Budget Impact:

I-Net maintenance costs vary depending on whether the site is a primary site (connected directly to the Comcast provided fiber) or a secondary site which is connected downstream from a primary site. This is because the downstream sites have less equipment to maintain. Assuming maintenance, repair and engineering, the cost estimate for a primary site is $3,500/yr. and for a secondary site is $2,500/yr.

In FY 2005 the City contracted with a private firm to replace all of the I-Net switches from ATM to corsewave to improve throughput and to increase the longevity of the I-Net by implementing the next generation of this technology. This upgrade was completed for the Schools in December 2005, and will be completed for the City in spring 2006.

Project Benefit:

This project has enhanced productivity by providing direct high speed connectivity among City government offices and by allowing several City schools (ACPS) to have video services to connect classrooms. This project enables the City to deliver scalable data, audio and video communications to the ACPS, the libraries and the City government as those services are needed and warranted.

Change In Project From Prior Fiscal Years:

There is no change in City funding for this project from the prior fiscal year.

Telephony
(015-014-8) Priority: Very Desirable

Relationship to City's Strategic Plan
"Deliver services in the most cost-effective manner."

This project includes the City-wide phased replacement of telephone switches for City and Library facilities. Alexandria City Public Schools (ACPS) telephone equipment will be funded through the ACPS operating budget and is not in the costs included in the IT Plan.

This project anticipates the future convergence of telephone and computer services, known as telephony or IP Telephony. Some of the more visible examples of this convergence are:

- Internet telephony (called Voice Over IP- VoIP) in which the Internet or LAN/WAN is used to carry voice communication;
- Web appliances which combine telephone services and wireless devices with Internet access;
- Telephone call management systems which enable the computer workstation to also be used as the desktop telephone device;
- Integrate telephone billing, inventory, and help desk systems to a web based system.

While these technologies are not yet sufficiently mature for deployment in the City's environment, they are technologies that have the potential for enabling future productivity improvements. To appropriately plan for the implementation of various telecommunications services, the City has been working with a contractor to develop a telecommunications strategic plan.

Operating Impact:

The operating and maintenance costs of telephone switches and voice mail units are not included in the ITS budget. Therefore, City department sand agencies need to work with the telecommunication coordinator to develop operating and maintenance budgets for telephone switches, voice mail units, phone sets, wireless phones, and pagers.

Project Benefit:

This project will provide more effective and efficient telephone and related telecommunications services to the City government, library system and the Alexandria City Public Schools.

Change In Project From Prior Fiscal Years:

Monies are included in FY 2007 to replace phone switches, in accordance with the 10-year switch replacement schedule.

Security
(015-014-3) Priority: Essential

Relationship to City's Strategic Plan
"People feel safe and secure through the community."

This project encompasses functions related to assuring the security of data on devices such as computers, servers, networking equipment and telephone switching equipment. The goal of this project is to minimize the risk of unauthorized access to and destruction of City data.

This project provides the funding to implement the recommendations of the thorough security assessment of the City's information systems that was completed in 2003. The Security project provides resources to enhance protection of the City's network from unauthorized access through external connections such as connections to other jurisdictions and to the Internet. Additionally this project provides funds to protect against unauthorized communications between devices located on the City's network.

Security project funds provide for the acquisition, replacement, configuration, and enhancement of computer network security devices and software known as firewalls, virtual private networks (VPN), intrusion detection systems (IDS), intrusion prevention systems (IPS), proxy servers, logging servers, authentication devices, and anti-virus and anti-spyware software (AV). Cumulatively, these technologies control and monitor electronic access to the City's network. These tools ensure that data communications are authorized and protected from eavesdropping, interference, or manipulation.

There are multiple parts to this project:

- It is anticipated that software for Security awareness training will be purchased. This training is necessary for City employees, contractors, temporary staff and other users given access to City systems.

- It is anticipated that firewall appliances (hardware devices that run specialized firewall software), will be purchased to protect current and future inter-jurisdictional connections, as well as internal connections between key City buildings. Additionally, a firewall is needed to protect the City's disaster recovery site. These monies are in addition to monies budgeted for this purpose as part of the I-Net replacement project.

- It is anticipated that intrusion detection / intrusion prevention appliances (hardware devices that run specialized IDS / IPS software), will be purchased to protect sensitive I-Net locations.

- It is anticipated that a centralized log server will be purchased to correlate and analyze event notices generated by the City's security (i.e. authentication servers, firewalls and IDS/IPS) and network (routers, switches, etc) systems.

- Successful implementation of these initiatives requires extensive documentation of the new systems as implemented, as well as the new responsibilities of ITS staff in maintaining these systems and responding to security incidents. It is expected that consultants will be used to develop this documentation.

- This project anticipates the purchase of a vulnerability scanning appliance in FY 2006 which will be used by contractors to perform annual analysis of the ever changing state of security on the City's computers.

- As needed, this project includes the purchase of expert services to test the efficiency and effectiveness of these devices and their configuration as they are implemented.

Project Benefit:

This project enhances productivity and ensures the City's quality of service by eliminating potential system intrusions that may disrupt network operations, damage system and data files and otherwise compromise the integrity of the City's networked environment.

Change In Project From Prior Fiscal Years:

An additional $25,000 is added to FY 2006 and FY 2007 for the purchase of additional internal firewalls and to provide sufficient funding for various initiatives.

Application Deployment Management
(015-014-15) Priority: Very Desirable

Relationship to City's Strategic Plan
"Deliver services in the most cost-effective manner."

This project was formerly known as 'Computer Workstation Software Management.' The City has a number of application systems which employ client/server technology. Client/server technology developed in the 1980's and early 1990's was designed so that much of the work done by the application system is performed by the client and only a little is performed by the server. These are called "fat client" systems because they contain large computer programs which must be stored and run on the client's computer. This requires that each computer workstation that uses an application system of this type have a special piece of software loaded on it and also requires that for each change in the release of the application, that someone go to the workstation and install the special piece of software - a time consuming task.

Fat client services can also be delivered through a web browser using a class of software called terminal servers. Citrix Metaframe and Microsoft Terminal Server are the leading products in this class. This technology will also help support the City's three primary remote access initiatives:

- Mobile Workforce - Provide the ability for City field workers to efficiently access City applications and network resources from the field over very slow network connections.

- Application Deployment - Deploy complex and expensive applications with heavy client configuration and update requirements to occasional users of the software.

- Virtual Workforce - Provide the ability for City employees to work remotely from other locations than the worksite. This supports the City's telecommuting initiatives by enabling staff to access City network and applications remotely.

In 2006, when the two ITS training classrooms are moved to their new office space, one of the classrooms will be configured using Wyse terminals with Citrix services. This will enable staff to centrally load applications required for training classes without having to update each machine in the classroom.

Project Benefit:

This project will lower software administration costs by reducing the number of hours currently required to install software applications on individual PC's, and will provide network and application remote access to staff.

This project will allow the City to publish City applications on the Citrix farm. This will reduce the number of applications that need to be installed on client workstations. This also reduces the number of licenses that the City needs to purchase for various software packages, such as for the Computer Aided Dispatch upgrade project. In addition, less staff time is required to upgrade applications and client workstations.

Change In Project From Prior Fiscal Years:

There are no changes to this project from the prior fiscal year.

Database Infrastructure Development
(015-014-13) Priority: Very Desirable

Relationship to City's Strategic Plan
"Deliver services in the most cost-effective manner."

The City currently possesses a number of database software products, as well as some older technology data access methods, that provide for the storage of key financial, personnel, and public safety data. These operational data systems - General Ledger, Purchasing, Payroll, Permitting, Real Estates and Tax systems - generally do a good job of capturing and storing detailed transactional data. But they were designed to deliver specific products and to answer specific questions, and are not always able to deliver information in an efficient and timely manner. These operational data contain unique data structures, different formats, are different from each other, with often only a single person within the City who

understands their content. This project involves the codification of rules, processes, and data elements contained in these key operational data. The project also consolidates this data into an information infrastructure that will support rapid analysis, simplified reporting and provide access and consistency to the data throughout the City.

Project Benefit:

This project enhances productivity by providing for a standard reference to all data elements that are in various City electronic databases. It provides for the consolidation and coordination of information (such as addresses) across numerous databases without regard for the nuances of each database's environment or construction. The project provides better quality service by improving the timeliness and accuracy of staff interaction with residents who request information or services through many of the City's applications, including Permitting, GIS, Real Estate Assessments, Recreation Department and other City applications. These efforts will enhance and support the City's E-Gov and Web-enabled application initiatives by providing analytical processing, special data querying tools, and most importantly by preparing data into consistent, meaningful, reliable, and reporting-ready formats. As this information infrastructure matures, it will support increased accountability within City agencies, performance management, trend analysis, streamlined data integration efforts, and it will position the City to take full advantage of evolving intranet, extranet, and Internet technologies.

Change In Project From Prior Fiscal Years:

Funding for this project in FY 2007 can be reduced by $75,000, as prior year balances can be utilized for near-term needs.

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ENTERPRISE SERVICES

	Prior Year Unallocated	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Totals
E-mail Services	192,000	200,000	250,000	0	90,000	105,000	0	837,000
Wireless Initiatives (Information Utility)	50,000	0	70,000	20,000	20,000	20,000	20,000	200,000
MS Office Conversion	0	250,000	0	0	0	0	0	250,000
Totals	**242,000**	**450,000**	**320,000**	**20,000**	**110,000**	**125,000**	**20,000**	**1,287,000**

E-mail Systems Development
(015-016-1) Priority: Very Desirable

Relationship to City's Strategic Plan
"Deliver services in the most cost-effective manner."

This project provide funds to improve and evolve the City's e-mail services. IBM Lotus Notes/Domino is the City's software used to provide electronic mail (e-mail) services to City employees. Domino, the server which supports Lotus Notes, provides a multiplatform foundation for collaboration and e-business.

Required e-mail message storage space has increased dramatically as employees continue their reliance on this critical business tool. An archiving solution that allows employees to easily retrieve archived messages is needed to reduce the demand for space on the active Lotus Notes database. Archiving e-mail frees up space and improves the performance of the active e-mail database by storing documents in an archive database when they are old or not in use anymore. The City is investigating several e-mail archiving solutions at this time.

Blackberry devices provide wireless access to e-mail at all times. The City currently has deployed 79 devices to City staff who have critical emergency response duties. City staff anticipate the number of Blackberry units deployed to City staff will increase as new models of wireless productivity are implemented. The deployment of these devices is currently limited to department heads or on an "as needed" basis. Device costs and annual fees are to be reflected in the respective department's operating budgets.

iNotes is browser accessible e-mail that will provide the capability for key City emergency staff to access their City e-mail from any Internet connection. With the implementation of iNotes, employees are able to check their e-mail with a browser accessible device from anywhere, any place, and at any time, helping to facilitate teleworking and emergency responsiveness. iNotes improves employee productivity by providing easy access to work e-mail accounts from wireless devices or from remote sites. An amount of $60,000 is included in FY 2007 to implement iNotes for all City staff.

As the use of e-mail and related services is expanded throughout the City, consulting services for administration and development will be required. Monies in the amount of $50,000 in FY 2007 are included to address this need.

Project Benefit:

This project provides funds to implement several important e-mail related initiatives that will improve employee productivity by improving access to essential information, improve speed and reliability of services, and take advantage of emerging technologies.

Change in Project from Prior Fiscal Years:

This project's funding has been reduced slightly in FY 2007 to $200,000 to reflect a more realistic time frame for when initiatives are likely to be completed.

Wireless Information Utility
(015-016-2) Priority: Desirable

Relationship to City's Strategic Plan
"Convenient… opportunities are available serving residents of the urban village and attracting others to come there."

This project provides funding for various wireless initiatives in the City, to benefit both the general public and City employees. Wireless technologies and applications are becoming commonplace across the United States and throughout the world. This technology trend is a direct response to the changing economic landscape, where the world is becoming increasingly information-based. Consequently, workers and consumers are demanding easy access to information - any time, any place, anywhere.

The City's "Wireless Alexandria" service, which went live in April 2005, allows any user with a wireless device to access the Internet at no charge. The service was the Washington, DC, region's first free, outdoor, wireless Internet zone, and still one of very few of its kind in the United States. The current outdoor coverage area is centered along the main downtown corridor and includes outdoor dining, Market Square, and the City Marina and Potomac River waterfront. Depending on building locations and other conditions, coverage is available for some distance around that corridor in each direction. If the pilot project continues to be successful, coverage may be expanded to other public spaces and pedestrian corridors in the City. Wireless Alexandria is also available at all Alexandria public libraries.

The goals of Wireless Alexandria are to provide a convenient public service to users, stimulate economic development and tourism by drawing people to Alexandria, promote the image of Alexandria as a high-tech community, and test the feasibility of using wireless devices for municipal operations. This "win-win" situation gives the government the rare opportunity to let the public use the same equipment City staff is testing for municipal use.

The service is optimized for outdoor use and uses 802.11b/g mesh routers. Although some indoor users may be able to connect to the system, the service is not intended to compete with commercially available Internet service and should not replace existing home or business Internet access. The project is narrowly tailored to serve a unique outdoor area of the City, and has virtually no impact on commercial Internet service providers.

At the conclusion of the pilot project in mid-2006, staff will consider the feasibility of covering the entire city with a wireless network that could aid municipal operations and regional collaboration by making the City's Institutional Network available to workstations and devices in the field. This would primarily benefit public safety personnel, public transit providers, field inspectors, and public works crews, by providing real-time access to existing City data, voice, and video services. If the City decides to build out a citywide wireless network, it will initially be for government use. The City will investigate public-private models to permit other uses of the network, such as allowing commercial providers to buy access to the network to resell to consumers. This could lower consumer costs (since the network is already in place) while promoting competition and recovering or avoiding the City's cost of building out the network.

In the City, wireless initiatives benefit City employees by providing field access to City applications, e-mail and other network services, to improve productivity. Monies for specific initiatives are included in different IT Plan projects, as shown in the table below. Monies for this project are for planning and implementing a wireless infrastructure to support on-going initiatives.

Wireless Initiatives in the FY 2007 - 2012 IT Plan

Project Name	Initiative	FY 2007 Funding Request
Permit Processing	Provide field access to the City's permitting application for Code Enforcement inspectors	$60,000, a portion of which will be used for wireless
E-mail Services	Blackberry support, and iNotes implementation	$30,000
Wireless Information Utility	Provide funds for needed infrastructure to support future wireless initiatives	$50,000

Project Benefit:

With the wireless infrastructure project, the City is positioning itself to establish a wireless framework to meet anticipated demands for these services.

Operating Impact:

The operating budget impact for this project will include equipment depreciation costs. At this time, these amounts are unknown.

Change In Project From Prior Fiscal Years:

FY 2007 funding for this initiative has been deferred to FY 2008.

MS Office Conversion
(015-016-3) Priority: Desirable

Relationship to City's Strategic Plan
"Ensure City services are responsive to changing needs.

The City's current desktop productivity standard is the Corel Suite (Word Perfect and Quattro Pro). However, as departments have identified the need to use Microsoft Word and Excel due to the need to communicate more easily with outside agencies, they have been allowed to purchase these products as well. The City is now at a crossroads with regards to desktop productivity software. The current standard of Corel Suite 9 is no longer supported by the manufacturer and is exhibiting conflicts with newer operating systems, and is recommended to be phased out in favor of the Microsoft Office Suite. The City's Information Technology Steering Committee convened a study group (the Desktop Task Force) consisting of City staff users of these products to analyze the issues before the City. It was the recommendation of the task force that the City convert the remaining Corel Suite users to the Microsoft Office suite.

Project Benefit:

When the City's standard becomes the Microsoft Office suite, the City would no longer be required to offer training classes in both Corel and Microsoft. A single standard requires less administrative support as well.

Operating Budget Impacts:

This project would provide departments the required Microsoft Suite licenses and training classes needed, therefore there would be limited operating budget impact as a result of the conversion.

Change in Project From Prior Fiscal Year:

There are no changes to this project from the prior fiscal year as $250,000 remains budgeted for FY 2007 to convert the City to Microsoft Office.

OTHER INFRASTRUCTURE

	Prior Year Unallocated	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Totals
Disaster Recovery - Hot Site								
Expenditure Totals	0	0	0	0	0	0	0	0
Less: Revenue Totals	0	0	0	0	0	0	0	0
Net City Cost	0	0	0	0	0	0	0	0
Totals	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

ITS Recovery Site
(015-017-2) Priority: Very Desirable

Relationship to City's Strategic Plan
"People feel safe and secure through the community."

The City's Network Operations Center (NOC) houses many of the City's critical data, applications and systems. Prior year monies budgeted will fund the establishment of a recovery site, with the equipment and environmental resources necessary to restore these systems. City staff are currently evaluating several proposals as potential disaster recovery solutions for the City. It is a requirement of the solution that staff are able to conduct periodic recovery testing of critical systems. A decision as to which solution will be implemented will be made in the spring of 2006, with implementation activities following soon thereafter.

Project Benefit:

In the event of a disaster or emergency where the City's NOC becomes inoperable, the disaster recovery site would enable the City to move its critical systems to the recovery site and restore them in a timely manner.

Change in Project over Prior Fiscal Years:

There is no change in this project from the prior fiscal year.

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APPENDIX A

FILE SERVER AND NETWORK COMPONENT REPLACEMENT

See description of server types on page 104

KEY H = Heavy Duty Server S = Standard Server
L = Light Server T = Thin Server

	Department/Function/Type of Server	Location	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
1	Courts / File & Print Services	Courthouse			S			
2	DSS / File & Print Services. To be converted to DHSNT1 (item #3) which is a NT/server in FY 2004	Human Services Building	Consolidated with new server line item #3					
3	DHS / File & Print Services. To be created in FY 2004 when FS14 is consolidated	Human Services Building		S				S
4	File & Print Services for City Hall	City Hall	S				S	
5	Test Finance / Performance Accounting and Asset Management. This is a MS/SQL client server application and the application was upgraded in FY 2003 along with an	City Hall				S		
6	Production Finance / Payroll DBMS for automating time and attendance reporting to begin implementation in FY 2003. This is a MS/SQL application (Kronos). Also this server must work with a IIS web server (see #84)	City Hall	H				H	
7	Production Permit Processing application. This is an MS/SQL server application and the application was upgraded in FY 2001 along with a conversion to MS/SQL. To provide citizen access this server is now linked to a voice response system and will be linked to the Internet in FY 2003.	City Hall		H				H
8	Fire / Fire Computer Aided Dispatching (CAD) and backup for Police CAD. This server is the gateway to the Public Safety AS400s.	Fire Station 204				T		
9	General Services / Motor Equipment Division. This server runs the parts and maintenance application.	MED at South Quaker Lane Facility				L		
10	DHS Harmony application server.	Human Services Building			S			
11	DHS Intranet Server.	Human Services Building	S				S	
12	Aging Information System.	Human Services Building	T				T	
13	DHS JobLink Program / File & Print Services.	2026 Eisenhower Ave., Suite 140			S			
14	Sheriff / ACJS server.	Public Safety Building	S				S	
15	ITS / Primary Domain Controller including DHCP and DNS functions. This server was placed into service in FY 2001.	City Hall				T		
16	ITS / Secondary Backup Domain Controller including DHCP and DNS functions. This server was placed into service in FY	Fire Station 204				T		
17	ITS / Backup Domain Controller.	Fire Station 206	T				T	
18	ITS / Backup Domain Controller	Print Shop	T				T	
19	ITS / Training. This is used for LN training.	City Hall			T			
20	ITS / Technical Services. For Network Management suite which includes Openview (Network Node Manager, Manage X, Optivity, Foreview).	City Hall				S		

	Department/Function/Type of Server	Location	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
21	ITS / Backup server controls the ADIC robotic tape device.	Print Shop				S		
22	Notes Mail Primary 1.	City Hall	S				S	
23	Notes Applications Primary.	City Hall	S				S	
24	Domino Fax Server.	City Hall			L			
25	Intranet Server.	City Hall		S				S
26	Internet Domino Web Server.	City Hall		S				S
27	City Hall Remote Access Server-1.	City Hall			T			
28	City Hall Remote Access Server-2.	City Hall			T			
29	MHMRSA Notes Mail Server.	MHMRSA 720 N. St. Asaph St.				S		
30	ITS / Lotus Notes Hub server.	City Hall	S				S	
31	ITS / NetID Primary server. Implements the DHCP and DNS functions.	City Hall	L				L	
32	ITS / NetID Secondary server. Implements the DHCP and DNS functions.	City Hall	L				L	
33	ITS / Service-on-Demand. Foreview I-Net Management	City Hall	L				L	
34	ITS / Foundation. Foreview I-Net Management server.	City Hall	L				L	
35	MHMRSA Anasazi database server installed in FY 2002. Main transaction processing server for agency.	MHMRSA 720 N. St. Asaph St.				H		
36	MHMRSA/NT 4. Medical Records Backup.	MHMRSA 720 N. St. Asaph St.	T				T	
37	MHMRSA/NT 4, Dell Optiplex 150. It stays on its own network of 4 computers. It is not connected to the City's network. It controls a methadone dispensing pump.	2355 Mill Rd.	T				T	
38	MHMRSA / Redundant Failover.	MHMRSA				H		
39	Police / File & Print Services.	PSB-Police		S				S
40	Police / Applications.	PSB-Police				S		
41	Police Firewall.	PSB-Police		T				T
42	Police Windows 2000 message switch for mobile computers	PSB-Police				S		
43	Police Web Server	PSB-Police	S				S	
44	Recreation File & Print Services and Rectrac for all Rec staff at the Lee Center.	City Hall		S				S
45	CJIS / Mugshot.	Courthouse		S				S
46	AJIS / Courthouse Applications which supports all Courthouse agencies and Probation & Parole, Public Defender, Women's Shelter, and Court Services Unit.	Courthouse		S				S
47	CJIS / HIDTA Drug Testing.	Courthouse		L				L
48	Library / Firewall.	Beatley Library		T				T
49	Finance / Treasury for the NT application.	City Hall	L				L	
50	T&ES database server applications. Clustered Traffic database server.	City Hall		S				S
51	T&ES database server applications. Clustered Traffic database server.	Colvin St						
52	Primary City Internet (web) server	Radix, Oxon Hill, Md				S		
53	High availability failover City Internet (web) server	Radix, Oxon Hill, Md						
54	Secure web server for site management and secure	Radix, Oxon Hill, Md				T		
55	List Service provider for internet	Radix, Oxon Hill, Md				T		
56	Cluster monitor, statistics and mirror for web system	Radix, Oxon Hill, Md	L				L	
57	Animal Shelter server for database, file and print services.	Animal Shelter			S			
58	Fire Admin server for file and print services	Station 204	S				S	
59	Logging Server	City Hall						
60	DBA Test Server - GIS	City Hall		S				S
61	File and Print services for CMO, OMB and City Attorney	City Hall			S			
62	E-Mail Archive Server	City Hall	S				S	
63	E-Mail Server for City Departments	City Hall	S				S	
64	E-Mail Gateway Server	City Hall				S		
65	E-Mail Gateway Server	City Hall		S				S

	Department/Function/Type of Server	Location	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
66	Blackberry Server	City Hall				S		
67	Kronos Web Server	City Hall				S		
68	File and Print Services Server for DASH.	DASH	S				S	
69	Print Server for City Departments	City Hall	L				L	
70	Anti-Virus Server	City Hall						
71	Anti-Virus Server	City Hall						
72	Clustered Domino Web Mail Servers	City Hall			L			
73	Clustered Domino Web Mail Server	City Hall			L			
74	Clustered Domino Web Mail Server	City Hall			L			
75	Clustered Domino Web Mail Server	City Hall			L			
76	Clustered Spam Server	City Hall			L			
77	Clustered Spam Server	City Hall			L			
78	Citrix server.	City Hall				S		
79	Citrix server	City Hall				S		
80	Software Update Server	City Hall			L			
81	Software Update Server. Also runs the ITS Project Management Software	City Hall			L			
82	FTP Server	City Hall			L			
83	GIS, ArcIMS, ERDAS server	City Hall			S			
84	Applications Server for City Applications	City Hall			S			
85	Mail Server 4	City Hall	H				H	
86	Mail Server 2	City Hall		H				H
87	MH Domain Controller	MHMRSA 720 N. St. Asaph St.					T	
88	MH Domain Controller	MHMRSA 720 N. St. Asaph St.					T	
89	Courts Domain Controller 1	Courthouse					T	
90	Courts Domain Controller 2	Courthouse					T	
91	GIS Database	City Hall					H	
		Totals	**25**	**15**	**20**	**20**	**30**	**15**

SERVER SPECIFICATIONS

	Thin Server	Light Duty	Standard Duty	Heavy Duty
NOS Supplied	**None**			
Number of Processors	1	1	2	4
Total Memory	1 GB RAM	1 GB RAM	2 GB RAM	4 GB RAM
Memory Config.	**Memory should always be ordered with the least number of large chips.**			
NIC (in addition to embedded)	**3Com Etherlink 10/100 Server NIC, Fiber Card or PCI ATM**			
TopTools Remote Card	Yes	Yes	Yes	Yes
A/C Adapter for Top Tools	Yes	Yes	Yes	Yes
Disk Drives	18.2GB/15,000 RPM	36.0GB/15,000 RPM	72.0GB/15,000 RPM	72.0GB/15,000 RPM
RAID Level	1	5	5	5
Dual Controllers	Embedded	Embedded	Embedded	Embedded
Total Drives	2	3	4-6	6+
External Storage	None	None	None	None
Backup	ADIC	ADIC	ADIC	
Monitor	None	None	None	None
Keyboard/Mouse	None	None	None	None
Service Level	**4 Hour Response (24x7)**			
Length of service contract	**4 years**			
Install Services	**None**			

APPENDIX B

STATE INFORMATION SYSTEMS USED BY CITY DEPARTMENTS AND AGENCIES

The City and the State exchange a variety of data. The first table identifies the kinds of State data services that are used by City departments and agencies, and the approximate number of connections for each system. The second table shows the approximate number of users within Finance, Human Services, Health, and Public Safety and Justice agencies.

Estimated Number of City Staff Connections to State Data Services

	City Dept. or Agency	Dept. of Corrections --- DEC Net	Dept. of Juvenile Justice --- Case Mgmt.	Dept. of Motor Vehicles --- DMV	VITA* --- Virginia Voter Registration System	VITA --- Compenstn. Board, SOC & Income Tax	VITA --- State Internet Services	State DSS --- Case Mgmt.
1	Adult Probation and Parole	25						
2	Circuit Court					1		
3	Commonwealth Attorney							
4	Juvenile Court Services		27					
5	Juvenile Court							
6	Finance			30		15		
7	Fire							
8	General District Court							
9	Health							
10	Human Services			1			1	1
11	MHMRSA Administration							
12	Registrar of Voters				10			
13	Police			1				
14	Sheriff			1		1		
	Total	25	27	33	10	17	1	1
	Sub Total	**114**		Table is continued on the next page				

* VITA is the State's Virginia Information Technologies Agency.

	City Dept. or Agency	State Health --- Patient Mgmt., WIC, Medicaid	State Mental Health --- POMS	State Police --- Virginia Crime Information Network	State Police --- Live Scan	State Police --- Local Inmate Data System	Supreme Court --- Case & Finance Mgmt.
1	Adult Probation and Parole						
2	Circuit Court						
3	Commonwealth Attorney			1			
4	Juvenile Court Services						8
5	Juvenile Court						27
6	Finance						
7	Fire						
8	General District Court						32
9	Health	110					
10	Human Services						
11	MHMRSA Administration						
12	Registrar of Voters						
13	Police			1	1		
14	Sheriff			2	1	1	
	Total	110	0	4	2	1	67
	Sub Total	**184**					
	TOTAL	**294**					

The following tables list the State data services in which the City participates:

State Systems Used by the Finance Department

Acronym/Title	Owner	Direct Connect?	Use	Users	Avg. No. Users
CARS / Commonwealth Accounting and Reporting System	Virginia Dept. of Accounts	Yes	Initiate Personal Property Tax Reduction Act (PPTRA) requests.	Finance Treasury	2
CompBoard	Virginia State Compensation Board	Yes	File and track compensation board budgets.	Finance Administration	3
DMV	Virginia Dept. of Motor Vehicles	Yes	Verify information related to personal property tax.	Finance Revenue, Finance Treasury	30
SCC	Virginia State Corporation Commission	Yes	Verify filings of articles of incorporation.	Finance Revenue	5
STARS	Virginia Dept. of Taxation	Yes	Assist with State income tax questions. Verify State sales tax distributions and assure City tax compliance.	Finance Accounting, Finance Revenue, Finance Treasury	30

State Systems Used by the City's Department of Human Services

Acronym/Title	Owner	Direct Connect?	Use	Users	Avg. No. Users
ADAPT	Virginia Dept. of Social Services	Yes	Tanf/VIEW (Temporary Assistance Needy Families/Virginia Incentive Employment not Welfare) and food stamp eligibility determination.	DHS Eligibility and Service related staff	125
DMV	Virginia Dept. of Motor Vehicles	Yes	Eligibility verifications.	DHS Eligibility and Service related staff	125
ESPAS	Virginia Dept. of Social Services	Yes	Tracks employment service activity.	DHS and *Job*Link staff	125
FSET / Food Stamp Employment and Training	Virginia Dept. of Social Services	Yes	Food Stamp services.	DHS Eligibility staff	4
LASER	Virginia Dept. of Social Services	Yes	Financial Administrative Services.	DHS Finance staff	5
LETS	Virginia Dept. of Social Services	Yes	Personnel System.	DHS Personnel staff	4
Medicaid	Virginia Dept. of Medical Assistance	Yes	Enrollment of Medicaid eligible.	DHS Eligibility and Service staff	125
OASIS	Virginia Dept. of Social Services	Yes	Tracks services to clients.	DHS Service and related staff	75
SVES / State Verification Exchange System		Yes	Eligibility verifications.	DHS Eligibility and Service related staff	125
VACIS	Virginia Dept. of Social Services	Yes	Eligibility verifications.	DHS Eligibility and Service related staff	125
VEC	Virginia Employment Commission	Yes	Eligibility and wage verification.	DHS Eligibility and Service related staff	125

State Systems Used by Health Services

Acronym/Title	Owner	Direct Connect?	Use	Users	Avg. No. Users
CARS	Virginia Dept. of Mental Health, Mental Retardation and Substance Abuse Services	No	Report on number of clients serviced, demographics, amount of services provided, and costs.	MHMRSA	5
Patient Management	Virginia Dept. of Health	Yes		Health	110
SCADS	Virginia Dept. of Mental Health, Mental Retardation and Substance Abuse Services	Yes	Extracts program admission and discharge information on Substance Abuse consumers.	MHMRSA	3
WIC / Women, Infants and Children	Virginia Dept. of Health	Yes		Health	110

State Systems Used by Public Safety and the Justice System

Acronym/Title	Owner	Direct Connect?	Use	Users	Avg. No. Users
Case Management	Dept. of Juvenile Justice	Yes	Case management for juvenile offendors.	Juvenile Court Services Unit	10-12
CIMS / Client Information Mgmt. System	Dept. of Criminal Justice Services	Yes	Victim-Witness Program.	Commonwealth Attorney	6
CMS / State Case Mgmt. System	State Supreme Court	Yes	Circuit Court - Calculate interest on payments to court cases. General District Court - Look up dispositions and court cases on GDC cases.	Clerk of Circuit Ct. General District Ct. Common. Atty. J&DR Court	2 14 7 9
DMV	Virginia Dept. of Motor Vehicles	Yes		Police	300
FMS	State Supreme Court	Yes	Financial management. Used to receive and account for all fees and collections by the Clerk of the Circuit Court.	Clerk of Circuit Ct. J&DR Court General District Ct.	20 3 13
KEA	Dept. of Corrections	Yes	General information from Dept. of Corrections	Adult Probation and Parole	25
LIDS / Local Inmate Data System	State Compensation Board	Yes	Track expenses for reimbursement from State as well as SSN and DOB research.	Sheriff	12
LiveScan	State Police	Yes	Fingerprint identification.	Police Sheriff	10 16
RMS / Records Mgmt. System	State Supreme Court	No	Primary index for land records. Maintains an index of all Alexandria land records recorded after 10/20/1999.	Public Clerk of Circuit Ct.	Varied 5
State Compensation Board	Virginia Dept. of Information Tech.	Yes	Accounting for personnel and office expenses as approved by the State.	Clerk of Circuit Ct. Sheriff	3 1
VCAIS	Commonwealth Attorney's Assoc.	Yes	Case management.	Commonwealth Attorney	5
VCIN / Virginia Crime Information Network	State Police	Yes	Run criminal histories and driving records.	Police Sheriff Common. Atty.	250 29 1

State Systems Used by Other Departments or Agencies

Acronym/Title	Owner	Direct Connect?	Use	Users	Avg. No. Users
Virginia Voter Registration System	Virginia Dept. of Information Tech.	Yes	Registrar.		10

CITY OF ALEXANDRIA
VIRGINIA

APPENDIX C

GEOGRAPHIC INFORMATION SYSTEMS LAYER DEVELOPMENT

(As of February 2006)

The following list shows the completed layers and the layer development priorities which were identified for inclusion in the GIS for the FY 2004 - FY 2009 IT Plan. This year, the layer list has been consolidated to reflect logical groupings of geographic data as opposed to the detailed structure of layers which have been listed in the past (i.e. lakes, streams-polygon, streams-centerline, shoreline now just listed as hydrography). As a result the list appears shorter but has actually just been reorganized.

- Completed layers are those that can be currently accessed by users on the GIS server. Priorities are those which have the highest priority for development during FY 2007.

- As the GIS continues to mature production influences such as the development of supporting data, new priority City projects or the willingness of a department to assist in the development or use of a layer, will drive future layers priorities. Layer priorities are reviewed on an on-going basis.

Completed Layers		
	Theme	**Layer**
1	Addresses	Address Points
2	Base map	Aerial Photos (1995, 1998, 2000, 2001)
3	Boundary	Alexandria City Limits
4	Recreation	Bike Trails
5	Buildings	Building Footprints (2D)
6	Buildings	Buildings Footprints (3D)
7	Census	Census Block Groups 1990
8	Census	Census Block Groups 2000
9	Census	Census Blocks 1990
10	Census	Census Blocks 2000
11	Census	Census Tracts 1990
12	Census	Census Tracts 2000
13	Planning	Central Business District
14	Code Enforcement	Code Enforcement Target Areas
15	Base Elevation	Contours (2ft Interval)
16	Human Services	Day Care Centers
17	Finance	Enterprise Zone
18	Misc	Fences & Walls
19	Fire	Fire Boxes
20	Hydrography	Hydrography (Streams, Lakes, Ponds)
21	Planning	King Street Transit District
22	Transit	Metro (Rail Lines & Stops)
23	Buildings	Misc Structures (Decks, Patios, Canopies)
24	Planning	Old and Historic /Parker-Gray Districts
25	Misc	Parking Lot & Driveways

Completed Layers (continued)		
	Theme	**Layer**
26	Recreation	Parks
27	Police	Police Beats
28	Police	Police Reporting Districts
29	Voter Registration	Polling Places
30	School	Public Schools
31	Transportation	Rail Roads
32	Recreation	Recreation Centers
33	Recreation	Recreational Amenities
34	Boundary	Regional Boundary
35	Transportation	Road Centerlines
36	Transportation	Road Edges
37	School	School Board Districts
38	Transportation	Sidewalk / Crosswalk
39	Planning	Small Area Plans
40	Base Elevation	Spot Elevations
41	Parcels	Tax Parcels
42	Traffic	Traffic Control Devices
43	Voter Registration	Virginia House Districts
44	Voter Registration	Virginia Senate Districts
45	Voter Registration	Voting Precincts
46	Planning	Zoning
47	Planning	Zoning Parking Districts
48	Planning	Proffers
49	ITS	INET Sites
50	Transportation	Residential Parking Districts
51	Environmental	Resource Protection Areas
52	Finance	Business Licenses
53	Fire	Fire Hydrants
54	Census	Population Profiles
55	Survey	Bench Marks
56	Transit	Bus Stops
57	Historic Alexandria	1938 Aerial (raster)

Priority Layers		
	Theme	**Layer**
1	Planning	Land Use
2	Address	Unit Numbers (Condominium /Apartment /office suites, etc)
3	GIS Core	Public Facilities
4	Planning	Zoning Height District
5	Environmental	Soils

COMPLETED ARCIMS (WEB BASED GIS) APPLICATIONS

Application	Department	Layers Utilized	Purpose
Planning Viewer (Intranet Only)	Planning & Zoning	Businesses Licenses, Historic Districts, Small Area Plan, Zoning, Metrorail Stations, Road Centerlines, Railroad Tracks, Address Points, Buildings, Curbs, Parcels, Historic Easements, Enterprise Zone, Central Business Ditrict, City Boundary, Imagery (2004, 2001)	Tool for assisting Planners in making informed decisions. Facilitates quick access to numerous layers of data about property locations relative to items such as zoning or historic districts. It enables visualization of what is on the ground. It also provides access to the City's address and parcel base.
Residential Parking Viewer (Intranet Only)	Finance	Active Parking Permits, Address Points, Parcels, Buildings, Streets, Residential Parking Zone Exemptions, Residential Parking Zones	Tool for assisting Finance with the issuance of parking permits. Provides quick access to information about which properties are in the "Residential Parking Districts" and which are not. It identifies locations where permits have been issued and highlights areas within a particular zone which may not be eligible for a parking permit.
Parcel Viewer (Intranet / Internet)	Real Estate	Small Area Plan, Zoning, Address Points, Metrorail Stations, Streets, Metrorail Tracks, Railroads, Buildings, Parcels, Imagery	Tool for providing staff and the public with information about property values and property locations. Allows users to search for properties by a variety of identifiers (map number, address and databank). Highlights properties and provides quick access to assessment information. Also allows the user to easily search neighboring properties using the map interface.
I-Net Viewer (Intranet Only)	Information Technoloy	I-Net Locations, I-Net Buildings, City Boundary, Address Points, Parcels, Streets, Imagery	Tool to display the City's I-Net. Shows all networked buildings, their names and addresses. Buildings are color coded by the ring on which they are connected.
Refuse Service Viewer (Intranet Only)	Transportation & Environmental Services	Collection Zones, Refuse Service, Streets, Buildings	Tool to display the City's refuse collection service schedule. Shows overview of collection zones by day and identifies each address as receiving or not receiving service.